


STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☒**APPLICATION FOR PERMIT TO DRILL**

2. TYPE OF WORK DRILL NEW WELL <input checked="" type="checkbox"/> REENTER P&A WELL <input type="checkbox"/> DEEPEN WELL <input type="checkbox"/>				1. WELL NAME and NUMBER NBU 921-23L1BS		
4. TYPE OF WELL Gas Well Coalbed Methane Well: NO				3. FIELD OR WILDCAT NATURAL BUTTES		
6. NAME OF OPERATOR KERR-MCGEE OIL & GAS ONSHORE, L.P.				5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES		
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217				7. OPERATOR PHONE 720 929-6587		
10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) UTU 0149075		11. MINERAL OWNERSHIP FEDERAL <input checked="" type="checkbox"/> INDIAN <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>		9. OPERATOR E-MAIL mary.mondragon@anadarko.com		
13. NAME OF SURFACE OWNER (if box 12 = 'fee')				12. SURFACE OWNERSHIP FEDERAL <input type="checkbox"/> INDIAN <input checked="" type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/>		
15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')				14. SURFACE OWNER PHONE (if box 12 = 'fee')		
17. INDIAN ALLOTTEE OR TRIBE NAME (if box 12 = 'INDIAN') UTE TRIBE				16. SURFACE OWNER E-MAIL (if box 12 = 'fee')		
20. LOCATION OF WELL		FOOTAGES	QTR-QTR	SECTION	TOWNSHIP	RANGE
LOCATION AT SURFACE		2201 FNL 477 FWL	SWNW	23	9.0 S	21.0 E
Top of Uppermost Producing Zone		2520 FSL 665 FWL	NWSW	23	9.0 S	21.0 E
At Total Depth		2520 FSL 665 FWL	NWSW	23	9.0 S	21.0 E
21. COUNTY UINTAH		22. DISTANCE TO NEAREST LEASE LINE (Feet) 665		19. SLANT VERTICAL <input type="checkbox"/> DIRECTIONAL <input checked="" type="checkbox"/> HORIZONTAL <input type="checkbox"/>		
		25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 700		23. NUMBER OF ACRES IN DRILLING UNIT 640		
27. ELEVATION - GROUND LEVEL 4863		28. BOND NUMBER WYB000291		26. PROPOSED DEPTH MD: 10008 TVD: 9920		
				29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE Permit #43-8496		

ATTACHMENTS**VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES**

<input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER	<input checked="" type="checkbox"/> COMPLETE DRILLING PLAN
<input type="checkbox"/> AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)	<input type="checkbox"/> FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER
<input checked="" type="checkbox"/> DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)	<input checked="" type="checkbox"/> TOPOGRAPHICAL MAP
NAME Kathy Schneebeck-Dulnoan	TITLE Staff Regulatory Analyst
SIGNATURE	PHONE 720 929-6007
API NUMBER ASSIGNED 43047506210000	DATE 08/03/2009
APPROVAL	EMAIL Kathy.SchneebeckDulnoan@anadarko.com
 Permit Manager	

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Prod	7.875	4.5	0	10008		
Pipe	Grade	Length	Weight			
	Grade HCP-110 LT&C	270	11.6			
	Grade I-80 LT&C	9738	11.6			

Proposed Hole, Casing, and Cement						
String	Hole Size	Casing Size	Top (MD)	Bottom (MD)		
Surf	12.25	9.625	0	2530		
Pipe	Grade	Length	Weight			
	Grade J-55 LT&C	2530	36.0			

T9S, R21E, S.L.B.&M.

Found 2006
Aluminum Cap in
Pile of Stones.

N89°53.7'W — 39.716' (G.L.O.)
N89°51'13"W — 2621.41' (Meas.)

N89°33.3'W — 40.431' (G.L.O.)

Found 2006
Aluminum Cap in
Pile of Stones.

N0°09.5'W — 40.173' (G.L.O.)

2651.43' (Measured)
N00°07'07"W (Basis of Bearings)

2201'

477'

Well Surface
Position

**WELL LOCATION:
NBU 921-23L1BS**

ELEV. UNGRADED GROUND = 4862.7'

23

Found 2006
Aluminum Cap in
Pile of Stones

N0°01.1'E — 40.094' (G.L.O.)
N00°03'36"E — 2646.34' (Meas.)

665'

Bottom
of Hole

2520'

NBU 921-23L1BS (Surface Position)

NAD 83 LATITUDE = 40.022789° (40° 01' 22.042")
LONGITUDE = 109.526716° (109° 31' 36.178")

NAD 27 LATITUDE = 40.022825° (40° 01' 22.169")
LONGITUDE = 109.526028° (109° 31' 33.702")

NBU 921-23L1BS (Bottom Hole)

NAD 83 LATITUDE = 40.021193° (40° 01' 16.293")
LONGITUDE = 109.526041° (109° 31' 33.749")

NAD 27 LATITUDE = 40.021228° (40° 01' 16.420")
LONGITUDE = 109.525354° (109° 31' 31.273")

Found 2006
Aluminum Cap in
Pile of Stones
Under E/W Fence

Found 2006
Aluminum Cap in
Pile of Stones
Under E/W Fence

N89°25'15"W — 2654.75' (Meas.)
N89°27.4'W — 40.223' (G.L.O.)

S89°56'29"W — 2641.83' (Meas.)
S89°54.5'W — 40.028' (G.L.O.)

Found 2006
Aluminum Cap
under E/W Fence

N0°08.1'W — 40.093' (G.L.O.)

N0°07.6'W — 40.104' (G.L.O.)

NOTES:

- ▲ = Section Corners Located
- 1. Well footages are measured at right angles to the Section Lines.
- 2. G.L.O. distances are shown in feet or chains. 1 chain = 66 feet.
- 3. The Bottom of hole bears S17°57'38"E 611.81' from the Surface Position.
- 4. Bearings are based on Global Positioning Satellite observations.
- 5. Basis of elevation is Tri-Sta "Two Water" located in the NW ¼ of Section 1, T10S, R21E, S.L.B.&M. The elevation of this Tri-Sta is shown on the Big Pack Mtn NE 7.5 Min. Quadrangle as being 5238'.

Kerr-McGee

Oil & Gas Onshore, LP

1099 18th Street — Denver, Colorado 80202

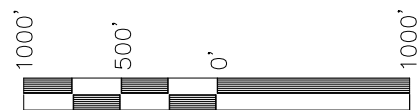
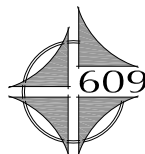
NBU 921-23L1BS

WELL PLAT

2520' FSL, 665' FWL (Bottom Hole)

**NW ¼ SW ¼ OF SECTION 23, T9S, R21E,
S.L.B.&M. UTAH COUNTY, UTAH.**

CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182



SCALE

SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

No. 362251
KOLBY R.
KAY

REGISTERED LAND SURVEYOR
REGISTRATION No. 362251
STATE OF UTAH

TIMBERLINE

(435) 789-1365

ENGINEERING & LAND SURVEYING, INC.

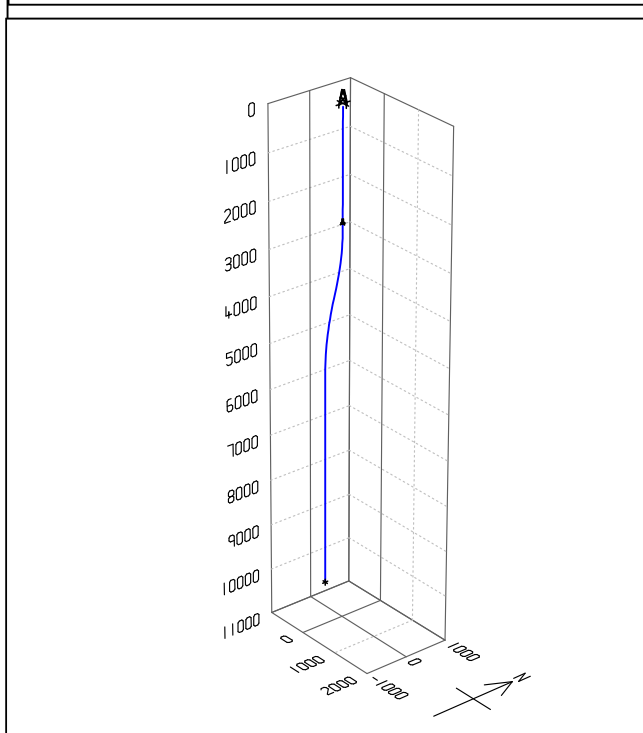
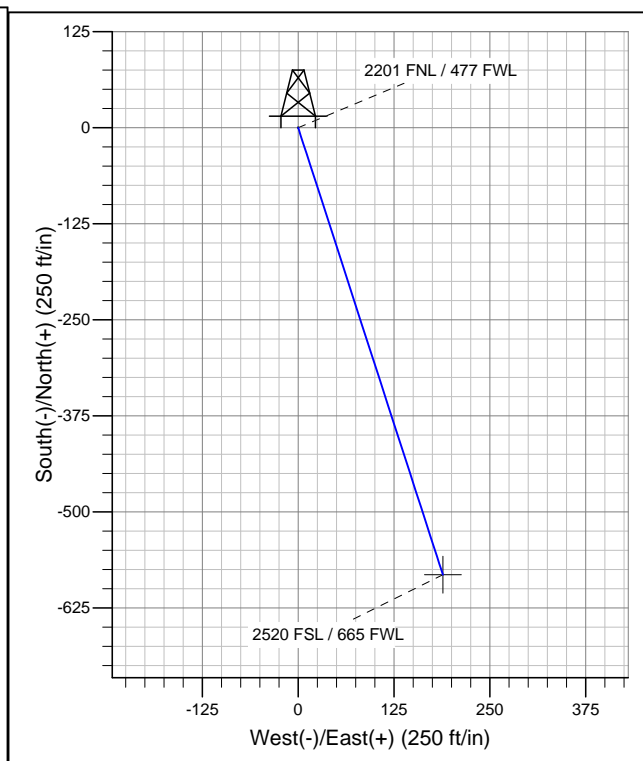
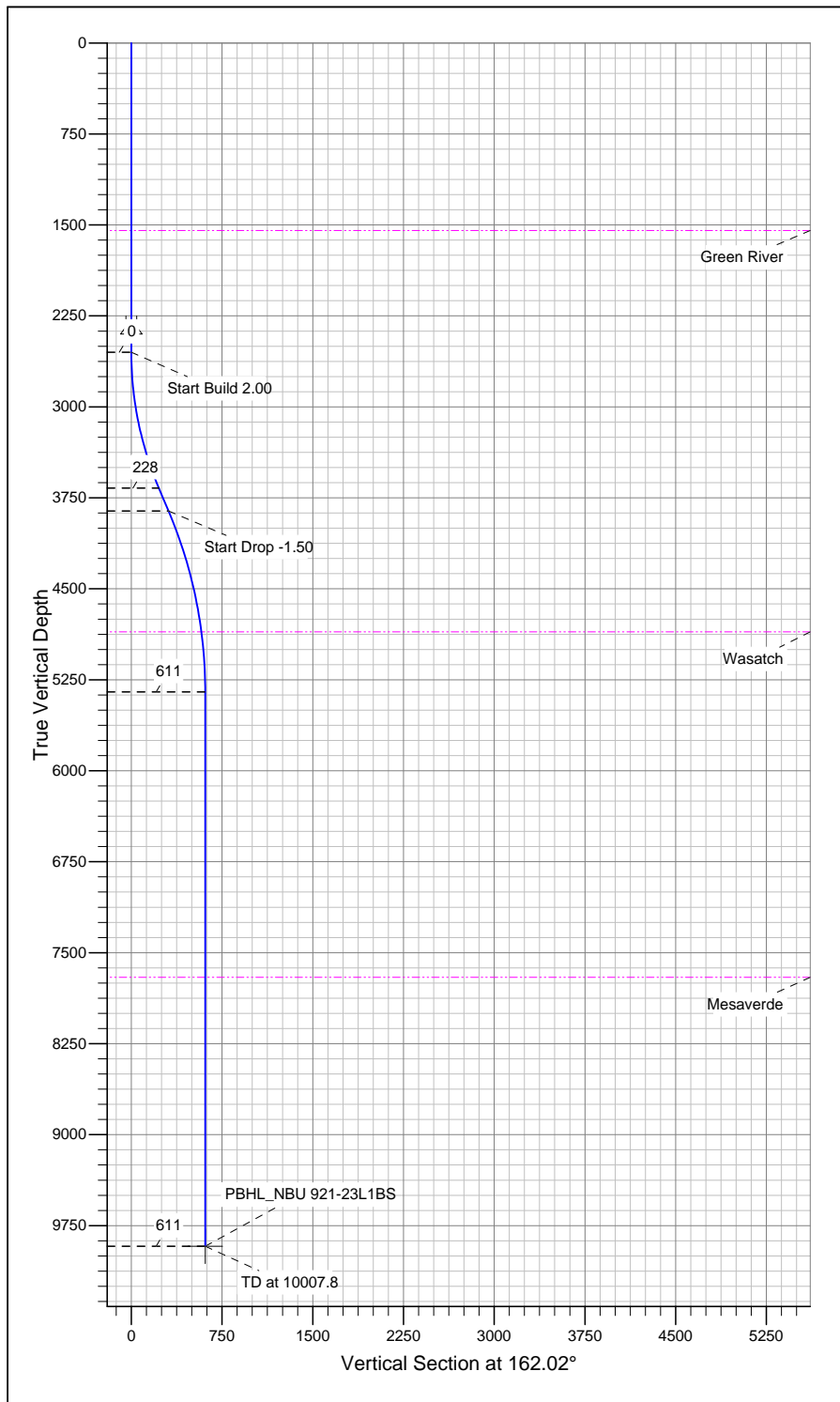
209 NORTH 300 WEST — VERNAL, UTAH 84078

DATE SURVEYED: 01-06-09	SURVEYED BY: M.S.B.	SHEET 1 OF 13
DATE DRAWN: 02-13-09	DRAWN BY: M.W.W.	
SCALE: 1" = 1000'	Date Last Revised: 04-23-09	

'APIWellNo:43047506210000'



Well Name: P_NBU 921-23L1BS
 Surface Location: UINTAH_NBU 921-23E PAD
 NAD 1927 (NADCON CONUS) Universal Transverse Mercator (US Survey Feet)
 UTAH - UTM (feet), NAD27, Zone 12N
 Ground Elevation: 4862.0
 Northing 14537769.75 Easting 2053085.27 Latitude 40.022825°N Longitude 109.526028°W



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
2	2550.0	0.00	0.00	2550.0	0.0	0.0	0.00	0.00	0.0
3	3700.0	23.00	162.02	3669.4	-216.6	70.3	2.00	162.02	227.7
4	3905.0	23.00	162.02	3858.1	-292.8	95.0	0.00	0.00	307.8
5	5438.4	0.00	0.00	5350.6	-581.6	188.7	1.50	180.00	611.5
6	10007.8	0.00	0.00	9920.0	-581.6	188.7	0.00	0.00	611.5



Azimuths to True North
 Magnetic North: 11.34°

Magnetic Field
 Strength: 52573.3snT
 Dip Angle: 65.94°
 Date: 5/15/2009
 Model: IGRF200510

ROCKIES - PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

UINTAH_NBU 921-23E PAD

P_NBU 921-23L1BS

P_NBU 921-23L1BS

Plan: Plan #1 05-15-09 ZJRA6

Standard Planning Report - Geographic

15 May, 2009

APC

Planning Report - Geographic

Database:	apc_edmp	Local Co-ordinate Reference:	Well P_NBU 921-23L1BS
Company:	ROCKIES - PLANNING	TVD Reference:	WELL @ 4862.0ft (Original Well Elev)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	WELL @ 4862.0ft (Original Well Elev)
Site:	UINTAH_NBU 921-23E PAD	North Reference:	True
Well:	P_NBU 921-23L1BS	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NBU 921-23L1BS		
Design:	Plan #1 05-15-09 ZJRA6		

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Fee	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site		UINTAH_NBU 921-23E PAD				
Site Position:		Northing:	14,537,799.03ft	Latitude:	40.022903°N	
From:	Lat/Long	Easting:	2,053,137.43ft	Longitude:	109.525840°W	
Position Uncertainty:		0.0 ft	Slot Radius:	"	Grid Convergence:	0.95 °

Well	P_NBU 921-23L1BS					
Well Position	+N-S	0.0 ft	Northing:	14,537,769.75 ft	Latitude:	40.022825°N
	+E-W	0.0 ft	Easting:	2,053,085.27 ft	Longitude:	109.526028°W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	4,862.0 ft

Wellbore	P_NBU 921-23L1BS				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	5/15/2009	11.34	65.94	52,573

Design	Plan #1 05-15-09 ZJRA6			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	9,920.0	0.0	0.0	162.02

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,550.0	0.00	0.00	2,550.0	0.0	0.0	0.00	0.00	0.00	0.00	
3,700.0	23.00	162.02	3,669.4	-216.6	70.3	2.00	2.00	0.00	162.02	
3,905.0	23.00	162.02	3,858.1	-292.8	95.0	0.00	0.00	0.00	0.00	
5,438.4	0.00	0.00	5,350.6	-581.6	188.7	1.50	-1.50	0.00	180.00	
10,007.8	0.00	0.00	9,920.0	-581.6	188.7	0.00	0.00	0.00	0.00	PBHL_NBU 921-23

APC

Planning Report - Geographic

Database:	apc_edmp	Local Co-ordinate Reference:	Well P_NBU 921-23L1BS
Company:	ROCKIES - PLANNING	TVD Reference:	WELL @ 4862.0ft (Original Well Elev)
Project:	UTAH - UTM (feet), NAD27, Zone 12N	MD Reference:	WELL @ 4862.0ft (Original Well Elev)
Site:	UINTAH_NBU 921-23E PAD	North Reference:	True
Well:	P_NBU 921-23L1BS	Survey Calculation Method:	Minimum Curvature
Wellbore:	P_NBU 921-23L1BS		
Design:	Plan #1 05-15-09 ZJRA6		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	14,537,769.75	2,053,085.27	40.022825°N	109.526028°W
1,546.0	0.00	0.00	1,546.0	0.0	0.0	14,537,769.75	2,053,085.27	40.022825°N	109.526028°W
Green River									
2,400.0	0.00	0.00	2,400.0	0.0	0.0	14,537,769.75	2,053,085.27	40.022825°N	109.526028°W
Surface Casing									
2,550.0	0.00	0.00	2,550.0	0.0	0.0	14,537,769.75	2,053,085.27	40.022825°N	109.526028°W
3,700.0	23.00	162.02	3,669.4	-216.6	70.3	14,537,554.33	2,053,159.13	40.022230°N	109.525777°W
3,905.0	23.00	162.02	3,858.1	-292.8	95.0	14,537,478.55	2,053,185.11	40.022021°N	109.525689°W
4,941.4	7.45	162.02	4,855.0	-550.9	178.8	14,537,221.86	2,053,273.13	40.021312°N	109.525390°W
Wasatch									
5,438.4	0.00	0.00	5,350.6	-581.6	188.7	14,537,191.32	2,053,283.60	40.021228°N	109.525354°W
7,790.8	0.00	0.00	7,703.0	-581.6	188.7	14,537,191.32	2,053,283.60	40.021228°N	109.525354°W
Mesaverde									
10,007.8	0.00	0.00	9,920.0	-581.6	188.7	14,537,191.32	2,053,283.60	40.021228°N	109.525354°W

Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_NBU 921-23L1	0.00	0.00	9,920.0	-581.6	188.7	14,537,191.32	2,053,283.60	40.021228°N	109.525354°W
- plan hits target center									
- Point									

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
2,400.0	2,400.0	Surface Casing	9-5/8	12-1/4

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
7,790.8	7,703.0	Mesaverde		0.00	
1,546.0	1,546.0	Green River		0.00	
4,941.4	4,855.0	Wasatch		0.00	

NBU 921-23L1BS

Pad: NBU 921-23E

Surface: 2,201' FNL, 477' FWL (SW/4NW/4)

BHL: 2,520' FSL 665' FWL (NW/4SW/4)

Sec. 23 T9S R21E

Uintah, Utah

Mineral Lease: UTU 0149075

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. – 2. **Estimated Tops of Important Geologic Markers:**
Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 – Surface	
Green River	1,546'	
Birds Nest	1,826'	Water
Mahogany	2,330'	Water
Wasatch	4,855'	Gas
Mesaverde	7,703'	Gas
MVU2	8,654'	Gas
MVL1	9,216'	Gas
TVD	9,920'	
TD	10,008'	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program.

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program.

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program.

6. **Evaluation Program:**

Please refer to the attached Drilling Program.

7. **Abnormal Conditions:**

Maximum anticipated bottomhole pressure calculated at 10,008' TD, approximately equals 6,235 psi (calculated at 0.62 psi/foot).

Maximum anticipated surface pressure equals approximately 3,998 psi (bottomhole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot).

8. **Anticipated Starting Dates:**

Drilling is planned to commence immediately upon approval of this application.

9. **Variances:**

Please refer to the attached Drilling Program.

Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- *Blowout Prevention Equipment (BOPE) requirements;*
- *Mud program requirements; and*
- *Special drilling operation (surface equipment placement) requirements associated with air drilling.*

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12-1/4 inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 12-1/4 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 9-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). The air rig operation utilizes a 5M BOPE when drilling. This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. Other Information:

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP	DATE	August 3, 2009		
WELL NAME	NBU 921-23L1BS	TD	9,920'	TVD	10,008' MD
FIELD	Natural Buttes	COUNTY	Uintah	STATE	Utah
				FINISHED ELEVATION	4,862'
SURFACE LOCATION	NW/4 NW/4	2,201' FNL	477' FWL	Sec 23	T 9S R 21E
	Latitude:	40.022789	Longitude:	-109.526716	NAD 83
BTM HOLE LOCATION	NW/4 SW/4	2,520' FSL	665' FWL	Sec 23	T 9S R 21E
	Latitude:	40.021193	Longitude:	-109.526041	NAD 83
OBJECTIVE ZONE(S)	Wasatch/Mesaverde				
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), Ute Tribe (Surface), UDOGM Tri-County Health Dept.				

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		20'		14"	
			12-1/4"	9-5/8", 36#, J-55, LTC	Air mist
<p>All water flows encountered while drilling will be reported to the appropriate agencies.</p>					
	Green River @	1,546'			
	Top of Birds Nest @	1,826'			
	Mahogany @	2,330'			
	Preset f/ GL @	2,530'			
		MD			
<p>Note: 12.25" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the actual depth of the loss zone.</p>					
	Wasatch @	4,855'			
<p>Mud logging program TBD Cased hole logging program from TD - surf csg</p>					
			7-7/8"	4-1/2" 11.6# I-180 & HCP-110 or equivalent LTC csg	Water / Fresh Water Mud 8.3-12.2 ppg
	Mverde @	7,703' TVD			
	MVU2 @	8,654' TVD			
	MVU1 @	9,216' TVD			
<p>Max anticipated Mud required 12.2 ppg</p>					
		9,920' TVD			
	TD @	10,008' MD			



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS		
						BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0-40'				3,520	2,020	453,000
SURFACE	9-5/8"	0 to 2,530	36.00	J-55	LTC	0.85	1.71	6.33
						7,780	6,350	201,000
PRODUCTION	4-1/2"	0 to 9,738	11.60	I-80	LTC	1.89	1.05	2.13
						10,690	8,650	279,000
	4-1/2"	9,738 to 10,008	11.60	HCP-110	LTC	179.97	1.37	109.49

1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

2) MASP (Prod Casing) = Pore Pressure at TD - (0.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 12.2 ppg)

0.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3,998 psi

3) Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

(Burst Assumptions: TD = 12.2 ppg)

0.62 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MABHP 6,235 psi

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	215	60%	15.60	1.18
			+ 0.25 pps flocele				
Option 1							
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	380	0%	15.60	1.18
			+ 2% CaCl + 0.25 pps flocele				
			Premium cmt + 2% CaCl				
SURFACE			NOTE: If well will circulate water to surface, option 2 will be utilized				
Option 2							
	LEAD	2,030'	65/35 Poz + 6% Gel + 10 pps gilsonite	480	35%	12.60	1.81
			+ 0.25 pps Flocele + 3% salt BWOW				
	TAIL	500'	Premium cmt + 2% CaCl	180	35%	15.60	1.18
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.60	1.18
PRODUCTION	LEAD	4,348'	Premium Lite II + 3% KCl + 0.25 pps	410	40%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	5,660'	50/50 Poz/G + 10% salt + 2% gel	1,390	40%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:

John Huycke / Emile Goodwin

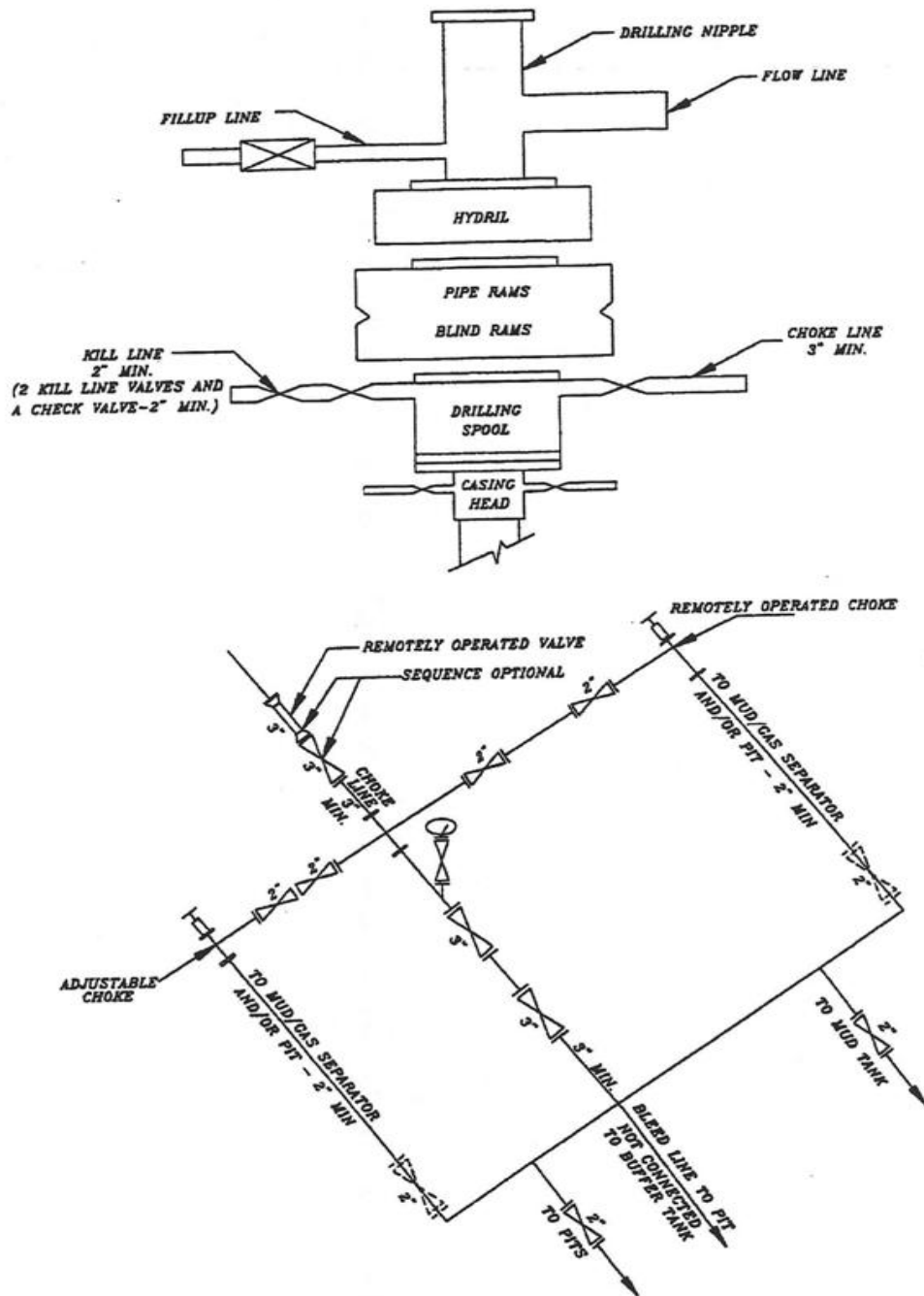
DATE:

DRILLING SUPERINTENDENT:

John Merkel / Lovel Young

DATE:

EXHIBIT A
NBU 921-23L1BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

WELL PAD INTERFERENCE PLAT

DIRECTIONAL PAD - NBU 921-23E

BASIS OF BEARINGS IS THE WEST LINE OF THE NW 1/4 OF SECTION 23, T9S, R21E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°07'07"W.

LATITUDE & LONGITUDE Surface Position - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
921-23L1BS	40°01'22.042" 40.022789°	109°31'36.178" 109.526716°
921-23E1CS	40°01'22.136" 40.022816°	109°31'35.952" 109.526653°
921-23F4CS	40°01'22.231" 40.022842°	109°31'35.726" 109.526590°
921-23E4BS	40°01'22.325" 40.022868°	109°31'35.501" 109.526528°
Existing Well NBU 921-23E	40°01'21.876" 40.022743°	109°31'35.768" 109.526602°

LATITUDE & LONGITUDE Bottom Hole - (NAD 83)		
WELL	N. LATITUDE	W. LONGITUDE
921-23L1BS	40°01'16.293" 40.021193°	109°31'33.749" 109.526041°
921-23E1CS	40°01'26.328" 40.023980°	109°31'33.779" 109.526050°
921-23F4CS	40°01'19.802" 40.022167°	109°31'16.793" 109.521331°
921-23E4BS	40°01'23.235" 40.023121°	109°31'33.768" 109.526047°

LATITUDE & LONGITUDE Surface Position - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
921-23L1BS	40°01'22.169" 40.022825°	109°31'33.702" 109.526028°
921-23E1CS	40°01'22.263" 40.022851°	109°31'33.476" 109.525965°
921-23F4CS	40°01'22.358" 40.022877°	109°31'33.249" 109.525903°
921-23E4BS	40°01'22.452" 40.022903°	109°31'33.024" 109.525840°
Existing Well NBU 921-23E	40°01'22.003" 40.022779°	109°31'33.291" 109.525914°

SURFACE POSITION FOOTAGES:

NBU 921-23L1BS
2201' FNL & 477' FWL

NBU 921-23E1CS
2192' FNL & 495' FWL

NBU 921-23F4CS
2182' FNL & 512' FWL

NBU 921-23E4BS
2172' FNL & 530' FWL

EXISTING WELL NBU 921-23E
2218' FNL & 509' FWL

BOTTOM HOLE FOOTAGES

NBU 921-23L1BS
2520' FSL & 665' FWL

NBU 921-23E1CS
1767' FNL & 665' FWL

NBU 921-23F4CS
2425' FNL & 1985' FWL

NBU 921-23E4BS
2080' FNL & 665' FWL

RELATIVE COORDINATES From Surface Position to Bottom Hole		
WELL	NORTH	EAST
921-23L1BS	-582'	189'
921-23E1CS	424'	169'
921-23F4CS	-247'	1,473'
921-23E4BS	92'	135'

LATITUDE & LONGITUDE Bottom Hole - (NAD 27)		
WELL	N. LATITUDE	W. LONGITUDE
921-23L1BS	40°01'16.420" 40.021228°	109°31'31.273" 109.525354°
921-23E1CS	40°01'26.455" 40.024015°	109°31'31.303" 109.525362°
921-23F4CS	40°01'19.929" 40.022203°	109°31'14.318" 109.520644°
921-23E4BS	40°01'23.362" 40.023156°	109°31'31.292" 109.525359°

Kerr-McGee
Oil & Gas Onshore, LP
1099 18th Street - Denver, Colorado 80202

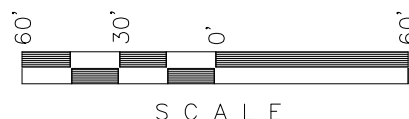
NBU 921-23L1BS, NBU 921-23E1CS,
NBU 921-23F4CS & NBU 921-23E4BS
LOCATED IN SECTION 23, T9S, R21E,
S.L.B.&M. UINTAH COUNTY, UTAH.

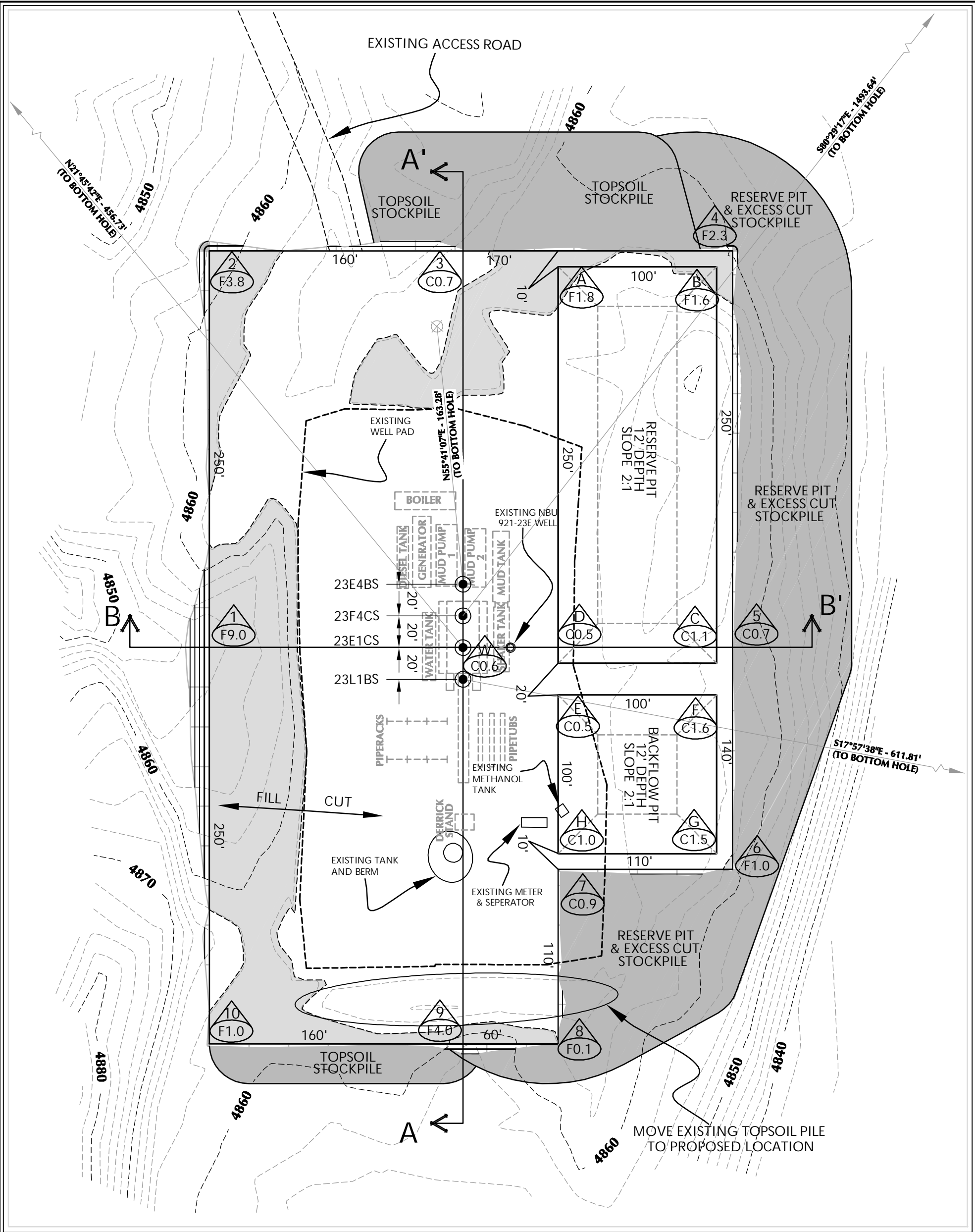

CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

DATE SURVEYED: 01-06-09	SURVEYED BY: M.S.B.
DATE DRAWN: 02-16-09	DRAWN BY: M.W.W.
	REVISED: 04-23-09

Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
209 NORTH 300 WEST VERNAL, UTAH 84078

SHEET
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WELL PAD NBU 921-23E QUANTITIES

EXISTING GRADE @ CENTER OF WELL PAD = 4,862.7'
FINISHED GRADE ELEVATION = 4,862.1'
CUT SLOPES = 1.5:1
FILL SLOPES = 1.5:1

TOTAL CUT FOR WELL PAD = 5,371 C.Y.
TOTAL FILL FOR WELL PAD = 3,669 C.Y.
TOPSOIL @ 6" DEPTH = 1,802 C.Y.
EXCESS MATERIAL = 1,702 C.Y.
TOTAL DISTURBANCE = 3.63 ACRES
SHRINKAGE FACTOR = 1.10
SWELL FACTOR = 1.00
RESERVE PIT CAPACITY (2' OF FREEBOARD)
+/- 28,730 BARRELS
RESERVE PIT VOLUME
+/- 7,720 CY
BACKFLOW PIT CAPACITY (2' OF FREEBOARD)
+/- 9,490 BARRELS
BACKFLOW PIT VOLUME
+/- 2,660 CY

WELL PAD LEGEND

- EXISTING WELL LOCATION
- PROPOSED WELL LOCATION
- PROPOSED BOTTOM HOLE LOCATION
- EXISTING CONTOURS (2' INTERVAL)
- PROPOSED CONTOURS (2' INTERVAL)



HORIZONTAL 0 30 60 1" = 60'
2' CONTOURS

KERR-MCGEE OIL & GAS
ONSHORE L.P.
1099 18th Street - Denver, Colorado 80202

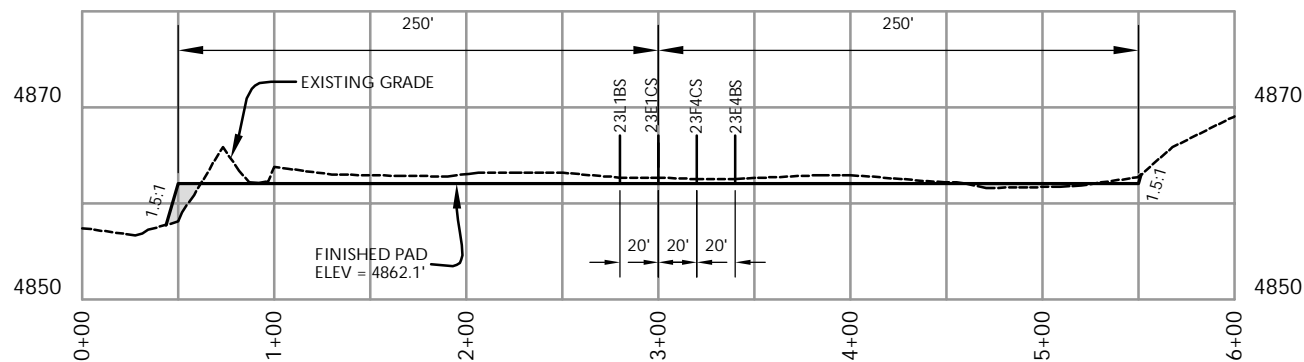


CONSULTING, LLC
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Sheridan WY 82801
Phone 307-674-0609
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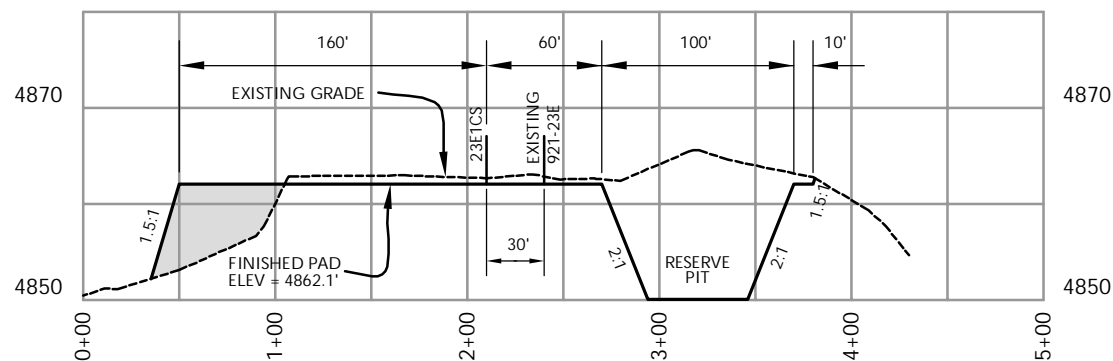
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REVISED:	RAW 5/4/09	6 OF 13

WELL PAD - LOCATION LAYOUT
NBU 921-23L1BS, NBU 921-23E1CS,
NBU 921-23F4CS & NBU 921-23E4BS
LOCATED IN SECTION 23, T.9S., R.21E.
S.L.B.&M., UINTAH COUNTY, UTAH

Timberline Engineering & Land Surveying, Inc. (435) 789-1365
38 WEST 100 NORTH VERNAL, UTAH 84078



CROSS SECTION A-A'



CROSS SECTION B-B'

NOTE: CROSS SECTION B-B' DEPICTS
MAXIMUM RESERVE PIT DEPTH.

**KERR-MCGEE OIL & GAS
ONSHORE L.P.**

1099 18th Street - Denver, Colorado 80202

WELL PAD - CROSS SECTIONS
NBU 921-23L1BS, NBU 921-23E1CS,
NBU 921-23F4CS & NBU 921-23E4BS
LOCATED IN SECTION 23, T.9S., R.21E.
S.L.B.&M., UINTAH COUNTY, UTAH



CONSULTING, LLC
371 Coffeen Avenue
Sheridan WY 82801
Phone 307-674-0609
Fax 307-674-0182

Scale: 1"=100'

Date: 3/19/09

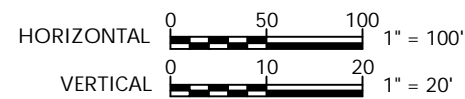
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5/4/09

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7 OF 13



Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
38 WEST 100 NORTH VERNAL, UTAH 84078

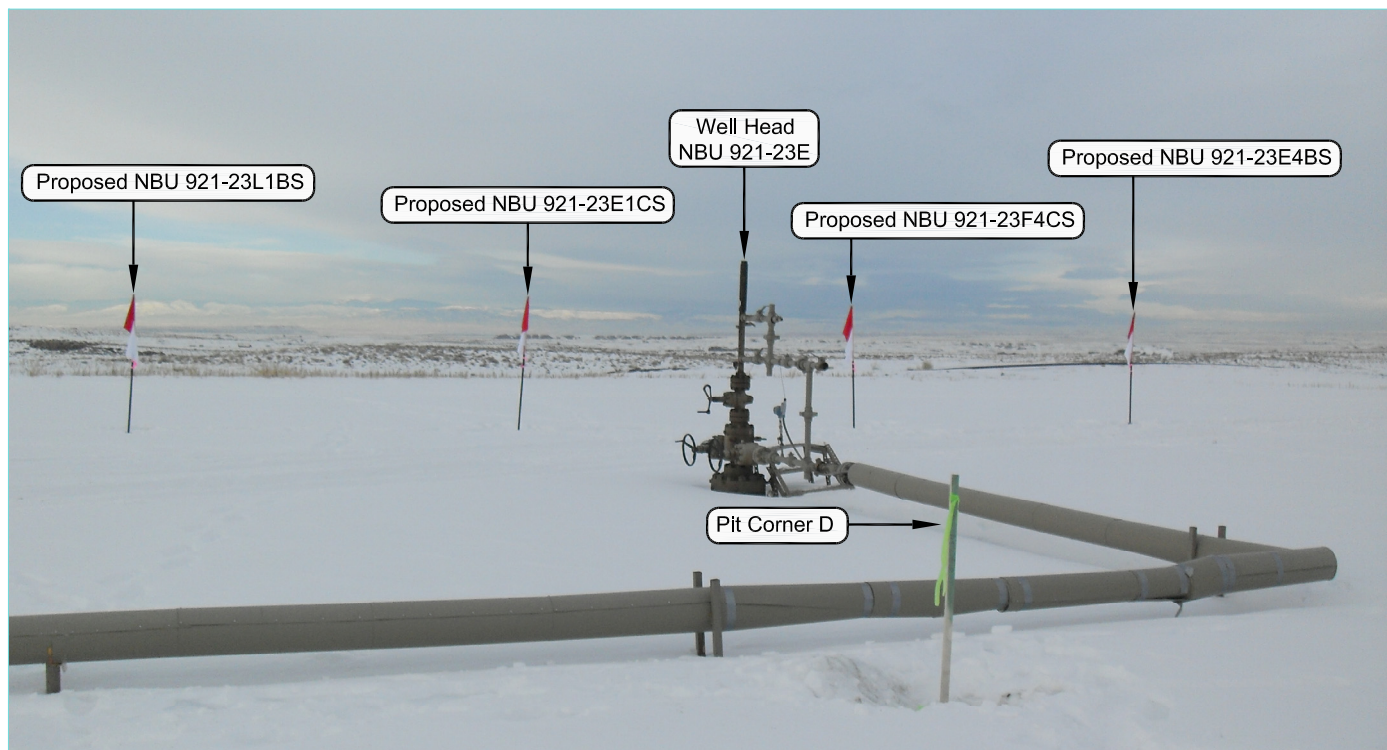


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKES

CAMERA ANGLE: NORTHERLY



PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHWESTERLY

Kerr-McGee
Oil & Gas Onshore, LP
 1099 18th Street - Denver, Colorado 80202

NBU 921-23L1BS, NBU 921-23E1CS,
 NBU 921-23F4CS & NBU 921-23E4BS
 LOCATED IN SECTION 23, T9S, R21E,
 S.L.B.&M. UINTAH COUNTY, UTAH.



CONSULTING, LLC
 371 Coffeen Avenue
 Sheridan WY 82801
 Phone 307-674-0609
 Fax 307-674-0182

LOCATION PHOTOS

TAKEN BY: M.S.B.

DRAWN BY: M.W.W.

DATE TAKEN: 01-06-09

DATE DRAWN: 02-16-09

REVISED: 04-23-09

Timberline (435) 789-1365
Engineering & Land Surveying, Inc.
 209 NORTH 300 WEST VERNAL, UTAH 84078

SHEET
8
OF 13

Kerr-McGee Oil & Gas Onshore, LP
NBU 921-23L1BS, NBU 921-23E1CS, NBU 921-23F4CS & NBU 921-23E4BS
Section 23, T9S, R21E, S.L.B.&M.

PROCEED IN A WESTERLY DIRECTION FROM VERNAL, UTAH ALONG U.S. HIGHWAY 40 APPROXIMATELY 13.9 MILES TO THE JUNCTION OF STATE HIGHWAY 88. EXIT LEFT AND PROCEED IN A SOUTHERLY DIRECTION ALONG STATE HIGHWAY 88 APPROXIMATELY 16.8 MILES TO OURAY, UTAH. FROM OURAY, PROCEED IN A SOUTHERLY DIRECTION ALONG THE SEEP RIDGE ROAD (COUNTY B ROAD 2810) APPROXIMATELY 11.2 MILES TO THE INTERSECTION OF THE GLEN BENCH ROAD (COUNTY B ROAD 3260). EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHEASTERLY, THEN NORTHEASTERLY DIRECTION ALONG THE GLEN BENCH ROAD APPROXIMATELY 11.4 MILES TO A CLASS D COUNTY ROAD TO THE SOUTHWEST. EXIT LEFT AND PROCEED IN A SOUTHWESTERLY DIRECTION ALONG THE CLASS D COUNTY ROAD APPROXIMATELY 1.8 MILES TO A SECOND CLASS D COUNTY ROAD TO THE NORTH. EXIT RIGHT AND PROCEED IN A NORTH BY NORTHWEST DIRECTION ALONG THE SECOND CLASS D COUNTY ROAD APPROXIMATELY 0.3 MILES TO A THIRD CLASS D COUNTY ROAD TO THE NORTH. EXIT RIGHT AND PROCEED IN A NORTHERLY, THEN NORTHEASTERLY DIRECTION ALONG THE THIRD CLASS D COUNTY ROAD APPROXIMATELY 1.2 MILES TO A SERVICE ROAD TO THE SOUTHEAST. EXIT RIGHT AND PROCEED IN A SOUTHEASTERLY DIRECTION ALONG THE SERVICE ROAD APPROXIMATELY 0.3 MILES TO A SECOND SERVICE ROAD TO THE EAST. EXIT LEFT AND PROCEED IN AN EASTERLY, THEN SOUTHERLY DIRECTION ALONG THE SECOND SERVICE ROAD APPROXIMATELY 0.5 MILES TO THE NBU 921-23E WELL PAD.

TOTAL DISTANCE FROM VERNAL, UTAH TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 57.1 MILES IN A SOUTHERLY DIRECTION.

NBU 921-23E1CS

Surface: 2,192' FNL, 495' FWL (SW/4NW/4)

BHL: 1,767' FNL 665' FWL (SW/4NW/4)

NBU 921-23E4BS

Surface: 2,172' FNL, 530' FWL (SW/4NW/4)

BHL: 2,080' FNL 665' FWL (SW/4NW/4)

NBU 921-23F4CS

Surface: 2,182' FNL, 512' FWL (SW/4NW/4)

BHL: 2,425' FNL 1,985' FWL (SE/4NW/4)

NBU 921-23L1BS

Surface: 2,201' FNL, 477' FWL (SW/4NW/4)

BHL: 2,520' FSL 665' FWL (NW/4SW/4)

Pad: NBU 921-23E

Sec. 23 T9S R21E

Uintah, Utah

Mineral Lease: UTU 0149075

Surface Owner: Ute Indian Tribe

ONSHORE ORDER NO. 1

***MULTI-POINT SURFACE USE & OPERATIONS PLAN
SUBMITTED WITH SITE-SPECIFIC INFORMATION***

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 (OSO #1) and supporting Bureau of Land Management (BLM) and Bureau of Indian Affairs (BIA) documents. An NOS was submitted showing the surface locations in SW/4 NW/4 of Section 23 T9S R21E. The well names of the following wells have changed names, therefore some documents may reflect the old well name:

NBU 921-23E1CS was fka NBU 921-23E1BS

NBU 921-23E4BS was fka NBU 921-23E1CS

NBU 921-23F4CS was fka NBU 921-23F4BS

This Surface Use Plan of Operations (SUPO) or 13-point plan provides the site-specific information for the above-referenced wells. This information is to be incorporated by reference into the Master Development Plan (MDP) for Kerr-McGee Oil & Gas Onshore LP (Kerr-McGee). The MDP is available upon request from the BIA-Ft Duchesne Office.

An on-site meeting was held on June 24, 2009. Present were:

- Verlyn Pindell and Dave Gordon – BLM;
- Bucky Secakuku – BIA
- Kolby Kay and Mitch Batty – Timberline Surveying, Inc.
- Nick Hall – Grasslands Consulting, Inc.
- Scott Carson – Smiling Lake Consulting
- Keith Montgomery – Montgomery Archaeological Consultants, Inc.
- Tony Kazeck, Jeff Samuels, Raleen White, David Liddell, and Hal Blanchard – Kerr-McGee

Directional Drilling:

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, this well will be directionally drilled in order to access portions of our lease which are otherwise inaccessible due to topography.

1. Existing Roads:

- A) Refer to Topo Map A for directions to the location.
- B) Refer to Topo Maps A and B for location of access roads within a 2-mile radius.

2. Planned Access Roads:

See MDP for additional details on road construction.

No new access road is proposed, as the road was previously included with the existing CIGE 46 well. Please refer to the attached Topo Map B. No pipelines will be crossed with the new construction.

Existence of pipelines; maximum grade; turnouts; major cut and fills, culverts, or bridges; gates, cattle guards, fence cuts, or modifications to existing facilities were determined at the on-site and are typically shown on the attached Exhibits and Topo maps.

3. Location of Existing Wells Within a 1-Mile Radius:

Please refer to Topo Map C.

4. Location of Existing and Proposed Facilities:

See MDP for additional details on Existing and Proposed Facilities.

This pad will expand the existing pad for the NBU 921-23E, which is a producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records.

The following guidelines will apply if the well is productive.

Approximately $\pm 1,825'$ (± 0.35 miles) of pipeline is proposed. The existing pipeline, as shown on Topo D, will be upgraded to accommodate anticipated production from the proposed wells. The upgraded pipeline will follow the same route as the existing pipeline. Appropriate surface use agreements have been or will be obtained from the Ute Indian Tribe. Pipeline segments will be welded or zaplocked together on disturbed areas in or near the location, whenever possible, and dragged into place

Per the onsite meeting, the following items were requested:

- The equipment (new and old infrastructure) will be painted Shadow Grey.

- The existing pipeline will be moved off the damage area of the well pad.
- Diversion drainages will be constructed around the well pad.

5. Location and Type of Water Supply:

See MDP for additional details on Location and Type of Water Supply.

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

No water well is to be drilled on this lease.

6. Source of Construction Materials:

See MDP for additional details on Source of Construction Materials.

7. Methods of Handling Waste Materials:

See MDP for additional details on Methods of Handling Waste Materials.

Any produced water from the proposed well will be contained in a water tank and will then be hauled by truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E
NBU #159 in Sec. 35 T9S R21E
Ace Oilfield in Sec. 2 T6S R20E
MC&MC in Sec. 12 T6S R19E
Pipeline Facility in Sec. 36 T9S R20E
Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E
Bonanza Evaporation Pond in Sec. 2 T10S R23E

8. Ancillary Facilities:

See MDP for additional details on Ancillary Facilities.

None are anticipated.

9. Well Site Layout: (See Location Layout Diagram)

See MDP for additional details on Well Site Layout.

All pits will be fenced according to the following minimum standards:

- Net wire (39-inch) will be used with at least one strand of barbed wire on top of the net wire. Barbed wire is not necessary if pipe or some type of reinforcement rod is attached to the top of the entire fence.
- The net wire shall be no more than two inches above the ground. The barbed wire shall be three inches over the net wire. Total height of the fence shall be at least 42 inches.
- Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.

- Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.
- All wire shall be stretched, by using a stretching device, before it is attached to corner posts.

10. Plans for Reclamation of the Surface:

See MDP for additional details on Plans for Reclamation of the Surface.

Kerr-McGee shall call the BIA for the seed mixture prior to starting interim and/or final reclamation actions.

11. Surface/Mineral Ownership:

The well pad and access road are located on lands owned by:

Ute Indian Tribe
PO Box 70
Fort Duchesne, Utah 84026
435-722-5141

The mineral ownership is listed below:

United States of America
Bureau of Land Management
170 South 500 East
Vernal, UT 84078
435-781-4400

12. Other Information:

See MDP for additional details on Other Information.

At the time the Paleo report was prepared, the following wells had the following well names:

NBU 921-23E1CS was fka NBU 921-23E1BS
NBU 921-23E4BS was fka NBU 921-23E1CS
NBU 921-23F4CS was fka NBU 921-23F4BS

13. Lessee's or Operators' Representative & Certification:

Kathy Schneebeck Dulnoan
Regulatory Analyst
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6007

Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720-929-6724)


Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.


Kathy Schneebeck Dulnoan

July 28, 2009
Date

CLASS I REVIEW OF KERR-MCGEE OIL & GAS
ONSHORE LP'S 51 PROPOSED WELL LOCATIONS
(T9S, R21E, SECTIONS 7, 8, 10, 11, 12,
17, 18, 19, 20, 23, 25, AND 30)
IN UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

Ute Tribal Land
Uintah and Ouray Agency

Bureau of Land Management
Vernal Field Office

Prepared Under Contract With:

Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 09-39

May 11, 2009

United States Department of Interior (FLPMA)
Permit No. 09-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

Ute Tribal Permit No. A09-363

CLASS I REVIEW OF KERR-MCGEE OIL & GAS
ONSHORE LP'S 50 PROPOSED WELL LOCATIONS
IN T9S, R21E SECS. 19, 20, 21, 23, 28, 29 AND 30
UINTAH COUNTY, UTAH

By:

Jacki A. Montgomery

Prepared For:

Ute Tribal Land
Uintah and Ouray Agency

Bureau of Land Management
Vernal Field Office

Prepared Under Contract With:

Kerr-McGee Oil & Gas Onshore LP
1368 South 1200 East
Vernal, Utah 84078

Prepared By:

Montgomery Archaeological Consultants, Inc.
P.O. Box 219
Moab, Utah 84532

MOAC Report No. 09-11

February 23, 2009

United States Department of Interior (FLPMA)
Permit No. 08-UT-60122

Public Lands Policy Coordination Office
Archaeological Survey Permit No. 117

Ute Tribal Permit No. A08-363

**Paleontological Assessment for Anadarko Petroleum Corporation
NBU 921-23E4BS, E1CS, L1BS, F4BS
Ouray SE Quadrangle
Uintah County, Utah**

Prepared for
Anadarko Petroleum Corporation
Granite Tower
1099 18th St. #1200
Denver, CO 80202
and
Ute Tribe
Energy and Minerals Department
P.O. Box 70
988 S. 7500 E., Annex Building
Fort Duchesne, UT 84026

Prepared by:
Benjamin John Burger, M.S., Justin J. Strauss, M.S., Paul C. Murphey, Ph.D.

SWCA Environmental Consultants
2028 West 500 North
Vernal, UT 84078
Phone: 435.789.9388
Fax: 435.789.9385
www.swca.com

SWCA #UT09-14314-37



Grasslands Consulting, Inc.

4800 Happy Canyon Road, Suite 110, Denver, CO 80237

(303) 759-5377 Office (303) 759-5324 Fax

SPECIAL STATUS PLANT AND WILDLIFE SPECIES REPORT

Report : GCI #34

Operator: Kerr-McGee Oil & Gas Onshore LP

Wells: NBU 921-23E Pad

(Bores: NBU 921-23E1CS, NBU 921-23E4BS, NBU 921-23L1BS, NBU 921-23F4CS)

Pipelines: N/A

Access Roads: N/A

Location: SW/NW Section 23, Township 9 South, Range 21 East; Uintah County, Utah

Survey-Species: Uinta Basin Hookless Cactus (*Sclerocactus wetlandicus*) and nesting raptors

Date: 06/17/2009

Observer(s): Grasslands Consulting, Inc. Biologists: Nick Hall, Dan Hamilton, Matt Kelahan, and Jonathan Sexauer. Technician: Chad Johnson.

Weather: Partly cloudy, 75-80°F, 0-5 mph winds with no precipitation.



Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779

June 9, 2009

Diana Mason
Utah Department of Oil, Gas & Mining
P.O. Box 145801
Salt Lake City, Utah 54114-6100

RE: Directional Drilling Letter R649-3-11
NBU 921-23L1BS
T9S-R21E
Section 23: SW/4NW/4 surface, NW/4SW/4 bottom hole
2201' FNL, 477' FWL (surface)
2520' FSL, 665' FWL (bottom hole)
Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

- Kerr-McGee's NBU 921-23L1BS is located within the Natural Buttes Unit Area.
- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing road and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit to be granted pursuant to R649-3-11.

Sincerely,

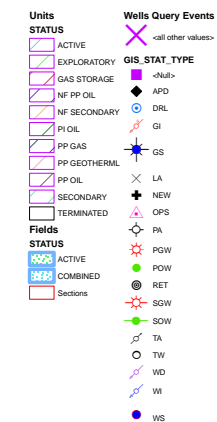
KERR-MCGEE OIL & GAS ONSHORE LP

A handwritten signature in blue ink that reads 'Joe Matney'.

Joe Matney
Senior Staff Landman

'APIWellNo:43047506210000'

Map Produced by Diana Mason



1,200 600 0 1,200 Feet

1:12,000

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Utah State Office
P.O. Box 45155
Salt Lake City, Utah 84145-0155

IN REPLY REFER TO:
3160
(UT-922)

August 7, 2009

Memorandum

To: Assistant District Manager Minerals, Vernal District
From: Michael Coulthard, Petroleum Engineer
Subject: 2009 Plan of Development Natural Buttes Unit
Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2009 within the Natural Buttes Unit, Uintah County, Utah.

API #	WELL NAME	LOCATION
(Proposed PZ WASATCH-MESA VERDE)		
43-047-50613	NBU 921-23E1CS	Sec 23 T09S R21E 2192 FNL 0495 FWL
	BHL	Sec 23 T09S R21E 1767 FNL 0665 FWL
43-047-50619	NBU 921-23E4BS	Sec 23 T09S R21E 2172 FNL 0530 FWL
	BHL	Sec 23 T09S R21E 2080 FNL 0665 FWL
43-047-50620	NBU 921-23F4CS	Sec 23 T09S R21E 2182 FNL 0512 FWL
	BHL	Sec 23 T09S R21E 2425 FNL 1985 FWL
43-047-50621	NBU 921-23L1BS	Sec 23 T09S R21E 2201 FNL 0477 FWL
	BHL	Sec 23 T09S R21E 2520 FSL 0665 FWL
43-047-50623	NBU 921-28C1CS	Sec 28 T09S R21E 0642 FNL 0844 FWL
	BHL	Sec 28 T09S R21E 0471 FNL 1985 FWL
43-047-50624	NBU 921-28C4BS	Sec 28 T09S R21E 0682 FNL 0844 FWL
	BHL	Sec 28 T09S R21E 0845 FNL 1985 FWL
43-047-50625	NBU 921-28C4CS	Sec 28 T09S R21E 0702 FNL 0844 FWL
	BHL	Sec 28 T09S R21E 1219 FNL 1985 FWL
43-047-50626	NBU 921-28D1BS	Sec 28 T09S R21E 0622 FNL 0844 FWL
	BHL	Sec 28 T09S R21E 0241 FNL 0665 FWL

Page 2

43-047-50627 NBU 920-21P	Sec 21 T09S R20E 0281 FSL 0524 FEL
43-047-50628 NBU 920-21N	Sec 21 T09S R20E 0460 FSL 1527 FWL
43-047-50629 NBU 920-21L	Sec 21 T09S R20E 2139 FSL 0979 FWL
43-047-50630 NBU 920-21M	Sec 21 T09S R20E 0734 FSL 0635 FWL

This office has no objection to permitting the wells at this time.

/s/ Michael L. Coulthard

bcc: File - Natural Buttes Unit
Division of Oil Gas and Mining
Central Files
Agr. Sec. Chron
Fluid Chron

MCoulthard:mc:8-7-09

WORKSHEET

APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 8/3/2009

API NO. ASSIGNED: 43047506210000

WELL NAME: NBU 921-23L1BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995)

PHONE NUMBER: 720 929-6007

CONTACT: Kathy Schneebeck-Dulnoan

PROPOSED LOCATION: SWNW 23 090S 210E

Permit Tech Review: ☒

SURFACE: 2201 FNL 0477 FWL

Engineering Review: ☒

BOTTOM: 2520 FSL 0665 FWL

Geology Review: ☒

COUNTY: Uintah

LATITUDE: 40.02281

LONGITUDE: -109.52599

UTM SURF EASTINGS: 625785.00

NORTHINGS: 4431120.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU 0149075

PROPOSED PRODUCING FORMATION(S): WASATCH-MESA VERDE

SURFACE OWNER: 2 - Indian

COALBED METHANE: NO

RECEIVED AND/OR REVIEWED:

- ☒ **PLAT**
- ☒ **Bond:** FEDERAL - WYB000291
- ☐ **Potash**
- ☒ **Oil Shale 190-5**
- ☐ **Oil Shale 190-3**
- ☐ **Oil Shale 190-13**
- ☒ **Water Permit:** Permit #43-8496
- ☐ **RDCC Review:**
- ☐ **Fee Surface Agreement**
- ☒ **Intent to Commingle**

Commingle Approved

LOCATION AND SITING:

- ☐ **R649-2-3.**
- Unit:** NATURAL BUTTES
- ☐ **R649-3-2. General**
- ☒ **R649-3-3. Exception**
- ☒ **Drilling Unit**
- Board Cause No:** Cause 173-14
- Effective Date:** 12/2/1999
- Siting:** 460' fr u bdry & uncomm. tract
- ☒ **R649-3-11. Directional Drill**

Comments: Presite Completed

Stipulations:

- 1 - Exception Location - dmason
- 3 - Commingle - ddoucet
- 4 - Federal Approval - dmason
- 15 - Directional - dmason
- 17 - Oil Shale 190-5(b) - dmason



JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: NBU 921-23L1BS
API Well Number: 43047506210000
Lease Number: UTU 0149075
Surface Owner: INDIAN
Approval Date: 8/11/2009

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Exception Location:

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

Commingle:

In accordance with Cause No. 173-14 commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:


- Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available)
OR
submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at <http://oilgas.ogm.utah.gov>

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) – due within 5 days of spudding the well
- Monthly Status Report (Form 9) – due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) – due prior to implementation
- Written Notice of Emergency Changes (Form 9) – due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) – due prior to implementation
- Report of Water Encountered (Form 7) – due within 30 days after completion
- Well Completion Report (Form 8) – due within 30 days after completion or plugging

Approved By:

A handwritten signature in black ink, appearing to read "Gil Hunt", with a stylized, cursive script.

Gil Hunt
Associate Director, Oil & Gas

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9			
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075			
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE TR			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 921-23L1BS			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2201 FNL 0477 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 23 Township: 09.0S Range: 21.0E Meridian: S		9. API NUMBER: 43047506210000			
PHONE NUMBER: 720 929-6007 Ext		9. FIELD and POOL or WILDCAT: NATURAL BUTTES			
COUNTY: UINTAH		STATE: UTAH			
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA					
TYPE OF SUBMISSION	TYPE OF ACTION				
<input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 8/12/2010 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input checked="" type="checkbox"/> APD EXTENSION OTHER: </td> </tr> </table>		<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input checked="" type="checkbox"/> APD EXTENSION OTHER:
<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input checked="" type="checkbox"/> APD EXTENSION OTHER: 			
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.					
<div style="text-align: right;"> Approved by the Utah Division of Oil, Gas and Mining </div> <div style="text-align: right; margin-top: 10px;"> Date: <u>August 23, 2010</u> By: </div>					
NAME (PLEASE PRINT) Danielle Piernot		PHONE NUMBER 720 929-6156			
SIGNATURE N/A		TITLE Regulatory Analyst			
		DATE 8/12/2010			



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Request for Permit Extension Validation Well Number 43047506210000

API: 43047506210000

Well Name: NBU 921-23L1BS

Location: 2201 FNL 0477 FWL QTR SWNW SEC 23 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 8/11/2009

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

- If located on private land, has the ownership changed, if so, has the surface agreement been updated? ☐ Yes ☒ No
- Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location? ☐ Yes ☒ No
- Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? ☐ Yes ☒ No
- Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location? ☐ Yes ☒ No
- Has the approved source of water for drilling changed? ☐ Yes ☒ No
- Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation? ☐ Yes ☒ No
- Is bonding still in place, which covers this proposed well? ☒ Yes ☐ No

**Approved by the
Utah Division of
Oil, Gas and Mining**

Signature: Danielle Piernot

Date: 8/12/2010

Title: Regulatory Analyst **Representing:** KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date: August 23, 2010

By:

RECEIVED August 12, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

AUG 03 2009

FORM APPROVED
OMB No. 1004-0136
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

BLM

CONFIDENTIAL

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. UTU0149075
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator KERR MCGEE OIL&GAS ONSHORE LP Contact: kathy.schneebeckdulnoan@anadarko.com		7. If Unit or CA Agreement, Name and No. NATURAL BUTTES
3a. Address PO BOX 173779 DENVER, CO 80217		8. Lease Name and Well No. NBU 921-23L1BS
3b. Phone No. (include area code) Ph: 720-929-6007 Fx: 720-929-7007		9. API Well No. 43-047-50621
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SWNW 2201FNL 477FWL 40.02279 N Lat, 109.52672 W Lon At proposed prod. zone NWSW 2520FSL 665FWL 40.02119 N Lat, 109.52604 W Lon		10. Field and Pool, or Exploratory NATURAL BUTTES
14. Distance in miles and direction from nearest town or post office* APPROXIMATELY 27 MILES SOUTHEAST OF OURAY, UT		11. Sec., T., R., M., or Blk. and Survey or Area Sec 23 T9S R21E Mer SLB
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) APPROXIMATELY 665' TO LEASE LINE	16. No. of Acres in Lease 640.00	12. County or Parish UINTAH
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. APPROXIMATELY 700'	19. Proposed Depth 10008 MD 9920 TVD	13. State UT
21. Elevations (Show whether DF, KB, RT, GL, etc.) 4863 GL	22. Approximate date work will start 09/07/2009	17. Spacing Unit dedicated to this well
		20. BLM/BIA Bond No. on file WYB000291
		23. Estimated duration 60-90 DAYS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature (Electronic Submission)	Name (Printed/Typed) KATHY SCHNEEBECK DULNOAN Ph: 720-929-6007	Date 08/03/2009
Title STAFF REGULATORY ANALYST		
Approved by (Signature) 	Name (Printed/Typed) James H. Sparger	Date JAN 19 2011
Title Acting Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD OFFICE	

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

UDOGM

Electronic Submission #72845 verified by the BLM Well Information System
For KERR MCGEE OIL&GAS ONSHORE LP, sent to the Vernal
Committed to AFMSS for processing by GAIL JENKINS on 08/06/2009 ()

NOTICE OF APPROVAL
RECEIVED

CONDITIONS OF APPROVAL ATTACHED

NOS and posted 8/10/2009

AFMSS# D9GXJ5675AE

FEB 01 2011 ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
VERNAL FIELD OFFICE

170 South 500 East

VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Kerr McGee Oil & Gas Onshore LP
Well No: NBU 921-23L1BS
API No: 43-047-50621

Location:
Lease No:
Agreement:

SWNW, Sec.23, T9S R21E
UTU-0149075
Natural Buttes

OFFICE NUMBER: (435) 781-4400

OFFICE FAX NUMBER: (435) 781-3420

**A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR
FIELD REPRESENTATIVE TO INSURE COMPLIANCE**

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. **This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.**

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	- Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	- Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	- Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to running casing and cementing all casing strings to: ut_vn_opreport@blm.gov .
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	- Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	- Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

***SURFACE USE PROGRAM
CONDITIONS OF APPROVAL (COAs)***

- All new and replacement internal combustion gas field engines of less than or equal to 300 design-rated horsepower must not emit more than 2 gms of NO_x per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO_x per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop work and contact the Authorized Officer (AO). A determination will be made by the AO as to what mitigation may be necessary for the discovered paleontologic material before construction can continue.

Site-Specific Conditions of Approval:

- Paint new and old (existing) facilities "Shadow Gray."
- Move existing pipeline off the damaged area of the well pad.
- Construct diversion ditches around the well pad.
- In accordance with the guidelines specified in the Utah BLM Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See Appendix D), a raptor survey should be conducted prior to expansion of the well pad or pipeline upgrade if construction would take place during raptor nesting season (January 01 through September 30) and conduct its operations according to specifications in the guidelines.
- If project construction operations are not initiated before June 17, 2010, KMG should conduct additional biological surveys in accordance with the guidelines specified in the USFWS Rare Plant Conservation Measures for Uinta Basin hookless cactus (See Appendix D) and conduct its operation according to its specifications.

BIA Standard Conditions of Approval:

- Soil erosion will be mitigated by reseeding all disturbed areas.
- The gathering pipelines will be constructed to lie on the surface. The surface pipelines will not be bladed or cleared of vegetation. Where pipelines are constructed parallel to roads they may be welded on the road and then lifted from the road onto the right-of-way. Where pipelines do not parallel roads but cross-country between sites, they shall be welded in place at well sites or on access roads and then pulled between stations with a suitable piece of equipment. Traffic will be restricted along these areas so that the pipeline right-of-way will not be used as an access road.
- An open drilling system shall be used, unless otherwise specified in 10.0 Additional Stipulations of this document and in the Application for Permit to Drill. A closed drilling system shall be used in all flood plain areas, and other highly sensitive areas, recommended by the Ute Tribe Technician, BIA, and other agencies involved.

- The reserve pit shall be lined with a synthetic leak proof liner. After the drilling operation is complete, excess fluids shall be removed from the reserve pit and either hauled to an approved disposal site or shall be used to drill other wells. When the fluids are removed the pit shall be backfilled a minimum of 3.0' below the soil surface elevation.
- A closed production system shall be used. This means all produced water and oil field fluid wastes shall be contained in leak proof tanks. These fluids shall be disposed of in either approved injection wells or disposal pits.
- Major low water crossings will be armored with pit run material to protect them from erosion.
- All personnel should refrain from collecting any paleontological fossils and from disturbing any fossil resources in the area.
- If fossils are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.
- Before the site is abandoned the company will be required to restore the right-of-way to near its original state. The disturbed area will be reseeded with desirable perennial vegetation. If necessary, the Bureau of Indian Affairs or Bureau of Land Management will provide a suitable seed mixture.
- Noxious weeds will be controlled on all surface disturbances within the project area. If noxious weeds spread from the project area onto adjoining land, the company will also be responsible for their control.
- If project construction operations are scheduled to occur after December 31, 2009, KMG should conduct annual raptor surveys in accordance with the guidelines specified in the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances, 2002 (See appendix D) and conduct its operation according to applicable seasonal restriction and spatial offsets.
- USFWS threatened and endangered plant and animal conservation measures will be followed, as appropriate to the species identified by the biological resource survey (See Appendix D).
- All personnel should refrain from collecting artifacts and from disturbing any significant cultural resources in the area.
- If artifacts or any culturally sensitive materials are exposed or identified during construction, all construction must cease and immediate notification to the Energy and Minerals Department and the Cultural Rights Protection Officer.

**DOWNHOLE PROGRAM
CONDITIONS OF APPROVAL (COAs)**

SITE SPECIFIC DOWNHOLE COA's:

Gamma Ray Log shall be run from Total Depth to Surface.

Variances Granted

Air Drilling:

- Properly lubricated and maintained rotating head, variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore, variance granted for blooie line discharge to be 45' from the well bore.
- Variance granted for two truck/trailer mounted air compressors located within 40 feet from the well bore and 60' from the blooie line.
- Mud Material Requirements. In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for kill fluid.
- Automatic igniter. Variance granted for igniter due to there being no productive formations while drilling with air.
- FIT test. Variance granted due to well geology and problems that can occur with FIT test.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and **NOT** by the rig pumps. Test shall be reported in the driller's log.

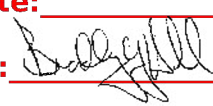
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- **Cement baskets shall not be run on surface casing.**
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM, Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- **Please submit an electronic copy of all other logs run on this well in LAS format to UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.**
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- In accordance with 43 CFR 3162.4-3, this well shall be reported on the "Monthly Report of Operations" (Oil and Gas Operations Report ((OGOR)) starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report shall be filed in duplicate, directly with the Minerals Management Service, P.O. Box 17110, Denver, Colorado 80217-0110, or call 1-800-525-7922 (303) 231-3650 for reporting information.
- Should the well be successfully completed for production, the BLM Vernal Field office must be notified when it is placed in a producing status. Such notification will be by written communication and must be received in this office by not later than the fifth business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following informational items:
 - Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4.

Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs, core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office Petroleum Engineers will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration reports shall be submitted to the BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover equipment shall be removed from a well to be placed in a suspended status without prior approval of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior approval of the BLM Vernal Field Office shall be obtained and notification given before resumption of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9			
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075			
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE TR			
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 921-23L1BS			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2201 FNL 0477 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 23 Township: 09.0S Range: 21.0E Meridian: S		9. API NUMBER: 43047506210000			
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		9. FIELD and POOL or WILDCAT: NATURAL BUTTES			
TYPE OF SUBMISSION <input checked="" type="checkbox"/> NOTICE OF INTENT Approximate date work will start: 5/14/2011 <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	TYPE OF ACTION <table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: </td> </tr> </table>		<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER:
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12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests to change the total depth (TD) to include the Blackhawk formation, which is in the Mesaverde group for this well. Please see attached for additional details. Please contact the undersigned if you have any questions and/or comments. Thank you.					
NAME (PLEASE PRINT) Andy Lytle		PHONE NUMBER 720 929-6100			
SIGNATURE N/A		TITLE Regulatory Analyst			
DATE 5/12/2011		APPROVED BY THE UTAH DIVISION OF OIL, GAS AND MINING Date: 05/12/2011 By: 			



KERR-McGEE OIL & GAS ONSHORE LP
DRILLING PROGRAM

COMPANY NAME	KERR-McGEE OIL & GAS ONSHORE LP				DATE	May 12, 2011			
WELL NAME	NBU 921-23L1BS				TD	11,026'	TVD	11,113'	MD
FIELD	Natural Buttes		COUNTY	Uintah	STATE	Utah	FINISHED ELEVATION		
SURFACE LOCATION	SWNW	2201 FNL	477 FWL	Sec 23	T 9S	R 21E			
	Latitude:	40.022789	Longitude:	-109.526716		NAD 83			
BTM HOLE LOCATION	NWSW	2520 FSL	665 FWL	Sec 23	T 9S	R 21E			
	Latitude:	40.021193	Longitude:	-109.526041		NAD 83			
OBJECTIVE ZONE(S)	Wasatch/Mesaverde								
ADDITIONAL INFO	Regulatory Agencies: BLM (Minerals), Tribal (Surface), UDOGM Tri-County Health Dept.								

GEOLOGICAL			MECHANICAL		
LOGS	FORMATION TOPS	DEPTH	HOLE SIZE	CASING SIZE	MUD WEIGHT
		40'		14"	
			12.25'	9-5/8", 36#, IJ-55, LTC	Air mist
<p>All water flows encountered while drilling will be reported to the appropriate agencies.</p>					
	Green River @	1,572'			
	Top of Birds Nest @	1,876'			
	Mahogany @	2,252'			
	Preset f/ GL @	2,700'			
	MD				
<p>Note: 12.25" surface hole will usually be drilled ±400' below the lost circulation zone (aka bird's nest). Drilled depth may be ±200' of the estimated set depth depending on the actual depth of the loss zone.</p>					
	Wasatch @	4,900'			
<p>Mud logging program TBD Cased hole logging program from TD - surf csg</p>					
			7-7/8"	4-1/2" 11.6# HCP-110 or equivalent BTC/LTC csg	Water / Fresh Water Mud 8.3-12.0 ppg
	Mverde @	7,756' TVD			
	MVU2 @	8,703' TVD			
	MVU1 @	9,175' TVD			
	Sego @	9,975' TVD			
	Castlegate @	10,034' TVD			
	MN5 @	10,426' TVD			
<p>Max anticipated Mud required</p>					
		11,026' TVD			
	TD @	11,113' MD			



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

	SIZE	INTERVAL	WT.	GR.	CPLG.	DESIGN FACTORS			
						BURST	COLLAPSE	LTC	BTC
								TENSION	
CONDUCTOR	14"	0-40'							
						3,390	1,880	348,000	N/A
SURFACE	9-5/8"	0 to 2,700	36.00	IJ-55	LTC	2.00	1.49	4.09	N/A
						10,690	8,650	279,000	367,000
PRODUCTION	4-1/2"	0 to 11,113	11.60	HCP-110	LTC or BTC	1.19	1.26	2.65	3.49

Surface Casing:

(Burst Assumptions: TD = 12.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.61 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500'	Premium cmt + 2% CaCl	220	60%	15.80	1.15
			+ 0.25 pps flocele				
Option 1							
	TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	330	0%	15.80	1.15
			+ 2% CaCl + 0.25 pps flocele				
			NOTE: If well will circulate water to surface, option 2 will be utilized				
SURFACE	LEAD	2,200'	65/35 Poz + 6% Gel + 10 pps gilsonite	250	35%	11.00	3.82
			+ 0.25 pps Flocele + 3% salt BWOW				
Option 2							
	TAIL	500'	Premium cmt + 2% CaCl	190	35%	15.80	1.15
			+ 0.25 pps flocele				
	TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION	LEAD	4,393'	Premium Lite II + 0.25 pps	350	35%	11.00	3.38
			celloflake + 5 pps gilsonite + 10% gel				
			+ 0.5% extender				
	TAIL	6,720'	50/50 Poz/G + 10% salt + 2% gel	1,590	35%	14.30	1.31
			+ 0.1% R-3				

*Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

*Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:

Nick Spence / Emile Goodwin

DATE:**DRILLING SUPERINTENDENT:**

Kenny Gathings / Lovel Young

DATE:

BLM - Vernal Field Office - Notification Form

Operator KERR-McGEE OIL & GAS Rig Name/# BUCKET RIG
Submitted By SHEILA WOPSOCK Phone Number 435.781.7024
Well Name/Number NBU 921-23L1BS
Qtr/Qtr SWNW Section 23 Township 9S Range 21E
Lease Serial Number UTU-0149075
API Number 4304750621

Spud Notice – Spud is the initial spudding of the well, not drilling out below a casing string.

Date/Time 06/03/2011 1400 HRS AM ☒ PM ☐

Casing – Please report time casing run starts, not cementing times.

- ☒ Surface Casing
☐ Intermediate Casing
☐ Production Casing
☐ Liner
☐ Other

RECEIVED

JUN 02 2011

DIV. OF OIL, GAS & MINING

Date/Time 07/01/2011 0800 HRS AM ☒ PM ☐

BOPE

- ☐ Initial BOPE test at surface casing point
☐ BOPE test at intermediate casing point
☐ 30 day BOPE test
☐ Other

Date/Time _____ AM ☐ PM ☐

Remarks ESTIMATED DATE AND TIME. PLEASE CONTACT
KENNY GATHINGS AT 435.781.7048 FOR MORE

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE TR
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 921-23L1BS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2201 FNL 0477 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 23 Township: 09.0S Range: 21.0E Meridian: S		9. API NUMBER: 43047506210000
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		9. FIELD and POOL or WILDCAT: NATURAL BUTTES
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		
TYPE OF SUBMISSION	TYPE OF ACTION	
<input type="checkbox"/> NOTICE OF INTENT Approximate date work will start:	<input type="checkbox"/> ACIDIZE	
<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input checked="" type="checkbox"/> SPUD REPORT Date of Spud: 6/4/2011	<input type="checkbox"/> CASING REPAIR	
<input type="checkbox"/> DRILLING REPORT Report Date:	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
	<input type="checkbox"/> CHANGE TUBING	
	<input type="checkbox"/> CHANGE WELL STATUS	
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	
	<input type="checkbox"/> DEEPEN	
	<input type="checkbox"/> FRACTURE TREAT	
	<input type="checkbox"/> OPERATOR CHANGE	
	<input type="checkbox"/> PLUG AND ABANDON	
	<input type="checkbox"/> PRODUCTION START OR RESUME	
	<input type="checkbox"/> RECLAMATION OF WELL SITE	
	<input type="checkbox"/> REPERFORATE CURRENT FORMATION	
	<input type="checkbox"/> SIDETRACK TO REPAIR WELL	
	<input type="checkbox"/> TUBING REPAIR	
	<input type="checkbox"/> VENT OR FLARE	
	<input type="checkbox"/> WATER SHUTOFF	
	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU PETE MARTIN BUCKET RIG. DRILLED 20" CONDUCTOR HOLE TO 40'. RAN 14" 36.7# SCHEDULE 10 PIPE. CMT W/28 SX READY MIX. SPUD WELL ON 06/04/2011 AT 1530 HRS.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Sheila Wopsock	PHONE NUMBER 435 781-7024	TITLE Regulatory Analyst
SIGNATURE N/A	DATE 6/9/2011	

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9			
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075			
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE TR			
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11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		9. FIELD and POOL or WILDCAT: NATURAL BUTTES			
TYPE OF SUBMISSION <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 7/3/2011	TYPE OF ACTION <table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/> </td> </tr> </table>		<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>
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12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU AIR RIG ON JULY 1, 2011. DRILLED SURFACE HOLE TO 2700'. RAN SURFACE CASING AND CEMENTED. WELL IS WAITING ON ROTARY RIG. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH WELL COMPLETION REPORT.					
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY					
NAME (PLEASE PRINT) Andy Lytle		PHONE NUMBER 720 929-6100			
SIGNATURE N/A		TITLE Regulatory Analyst			
DATE 7/5/2011					

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 6

ENTITY ACTION FORM

Operator: KERR McGEE OIL & GAS ONSHORE LP Operator Account Number: N 2995
Address: P.O. Box 173779
city DENVER
state CO zip 80217 Phone Number: (720) 929-6100

Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
4304750621	NBU 921-23L1BS		SWNW	23	9S	21E	UINTAH
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
<u>B</u>	99999	<u>2900</u>	6/4/2011			<u>6/22/11</u>	
Comments: MIRU PETE MARTIN BUCKET RIG. <u>WSTMVD</u> SPUD WELL LOCATION ON 6/4/2011 AT 15:30 HRS. <u>BAL = NWSW</u>							

Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date			Entity Assignment Effective Date	
Comments:							

ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

ANDY LYTLE

Name (Please Print)

Signature

REGULATORY ANALYST

Title

6/7/2011

Date

RECEIVED

JUN 07 2011

(5/2000)

DIV. OF OIL, GAS & MINING

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075
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<input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion:	<input type="checkbox"/> ALTER CASING	
<input type="checkbox"/> SPUD REPORT Date of Spud:	<input type="checkbox"/> CASING REPAIR	
<input checked="" type="checkbox"/> DRILLING REPORT Report Date: 8/22/2011	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	
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	<input type="checkbox"/> CHANGE WELL STATUS	
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	<input type="checkbox"/> SI TA STATUS EXTENSION	
	<input type="checkbox"/> WILDCAT WELL DETERMINATION	
	<input type="checkbox"/> OTHER: <input style="width: 100px;" type="text"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU ROTARY RIG. FINISHED DRILLING FROM 2700' TO 11,100' ON AUGUST 20, 2011. RAN 4-1/2" 11.6# P-110 PRODUCTION CASING. CEMENTED PRODUCTION CASING. RELEASED ENSIGN RIG 146 ON AUGUST 22, 2011 @ 13:30 HRS. DETAILS OF CEMENT JOB WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES.		
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY		
NAME (PLEASE PRINT) Andy Lytle		PHONE NUMBER 720 929-6100
SIGNATURE N/A		TITLE Regulatory Analyst
DATE 8/23/2011		

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9			
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10. FIELD and POOL or WILDCAT: NATURAL BUTTES		COUNTY: UINTAH			
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		STATE: UTAH			
TYPE OF SUBMISSION <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: <input type="checkbox"/> SPUD REPORT Date of Spud: <input checked="" type="checkbox"/> DRILLING REPORT Report Date: 10/4/2011	TYPE OF ACTION <table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input checked="" type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/> </td> </tr> </table>		<input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input checked="" type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION	<input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input type="checkbox"/> OTHER	<input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION OTHER: <input style="width: 100px;" type="text"/>
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12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. THE SUBJECT WELL WAS PLACED ON PRODUCTION ON 10/04/2011 AT 2:00 PM. THE CHRONOLOGICAL WELL HISTORY WILL BE SUBMITTED WITH THE WELL COMPLETION REPORT.					
Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY					
NAME (PLEASE PRINT) Sheila Wopsock		PHONE NUMBER 435 781-7024			
SIGNATURE N/A		TITLE Regulatory Analyst			
DATE 10/6/2011					

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
UTU01490751a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.
UTU63047A2. Name of Operator
KERR MCGEE OIL & GAS ONSHORE, Contact: JAIME L. SCHARNOWSKE
Email: JAIME.SCHARNOWSKE@ANADARKO.COM8. Lease Name and Well No.
NBU 921-23L1BS3. Address PO BOX 173779
DENVER, CO 802173a. Phone No. (include area code)
Ph: 720-929-63049. API Well No.
43-047-50621

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface SWNW 2201FNL 477FWL 40.022825 N Lat, 109.526028 W Lon

At top prod interval reported below NWSW 2534FSL 673FWL

At total depth NWSW 2475FSL 701FWL

BHL by HSM

10. Field and Pool, or Exploratory
NATURAL BUTTES11. Sec., T., R., M., or Block and Survey
or Area Sec 23 T9S R21E Mer SLB12. County or Parish
UINTAH13. State
UT14. Date Spudded
06/04/201115. Date T.D. Reached
08/20/201116. Date Completed
☐ D & A ☒ Ready to Prod.
10/04/201117. Elevations (DF, KB, RT, GL)*
4862 GL18. Total Depth: MD 11100
TVD 1104319. Plug Back T.D.: MD 11038
TVD 1098120. Depth Bridge Plug Set: MD
TVD21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
CBL/VDL/GR/CCL-CMI-RSL/SM-SYNTHETIC TRIPLE COMBO22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
20.000	14.000 STL	36.7	0	40		28			
12.250	9.625 J-55	40.0	0	2690		750		0	
7.875	4.500 I-80	11.6	0	11083		1928		1414	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.375	10448							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) MESAVERDE	7966	10733	7966 TO 10733	0.360	188	OPEN
B) WSMVD						
C)						
D)						

26. Perforation Record

27. Acid, Fracture, Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
7966 TO 10733	PUMP 13,003 BBLs SLICK H2O & 292,787 LBS 30/50 OTTAWA SAND

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
10/04/2011	10/10/2011	24	→	0.0	3657.0	720.0			FLows FROM WELL
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
20/64	SI 1544	2137.0	→	0	3657	720		PGW	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
	SI		→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #122813 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED

RECEIVED

NOV 15 2011

DIV. OF OIL, GAS & MINING

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→						

29. Disposition of Gas(*Sold, used for fuel, vented, etc.*)
SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				GREEN RIVER BIRD'S NEST MAHOGANY WASATCH MESAVERDE	1580 1919 2312 4944 7807

32. Additional remarks (include plugging procedure):

Attached is the chronological well history, perforation report & final survey.

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions):

Electronic Submission #122813 Verified by the BLM Well Information System.
For KERR MCGEE OIL & GAS ONSHORE,L, sent to the Vernal

Name (*please print*) JAIME L. SCHARNOWSKE

Title REGULATORY ANALYST

Signature (Electronic Submission)

Date 11/09/2011

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23L1BS GREEN	Spud Conductor: 6/4/2011	Spud Date: 7/1/2011
Project: UTAH-UINTAH	Site: NBU 921-23E PAD	Rig Name No: ENSIGN 146/146, PROPETRO 11/11
Event: DRILLING	Start Date: 5/25/2011	End Date: 8/22/2011
Active Datum: RKB @4,876.00usft (above Mean Sea Level)	UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2201/NW/0/477/0/0	

Date	Time Start-End	Duration (hr)	Phase	Code	Sub-Code	P/U	MD From (usft)	Operation
7/1/2011	11:00 - 13:30	2.50	DRLPRO	01	B	P		SKID RIG TO LAST WELL ON PAD
	13:30 - 15:30	2.00	DRLPRO	02	C	P		SPUD WELL DRILL 12.25" HOLE F/ 40' - 225'
	15:30 - 18:30	3.00	DRLPRO	06	A	P		TOOH PICK UP DIRECTIONAL TOOLS AND TIH
	18:30 - 0:00	5.50	DRLPRO	02	C	P		DRILL 12.25" HOLE F/ 225' - 860'
7/2/2011	0:00 - 1:00	1.00	DRLSUR	07	A	P		DAILY RIG SERVICE
	1:00 - 22:30	21.50	DRLSUR	02	C	P		DRILL 12.25" HOLE F/ 860' - 2330'
	22:30 - 0:00	1.50	DRLSUR	08	A	Z		WORK ON MUD PUMPS
7/3/2011	0:00 - 3:00	3.00	DRLSUR	08	A	Z		WORK ON MUD PUMPS
	3:00 - 10:00	7.00	DRLSUR	02	C	P		DRILL 12.25" HOLE F/ 2330' - 2700' T.D.
	10:00 - 10:30	0.50	DRLSUR	05	C	P		CIRC AND COND MUD
	10:30 - 15:00	4.50	DRLSUR	06	A	P		LAY DOWN DRILL STRING
	15:00 - 16:00	1.00	DRLSUR	12	C	P		RUN 63 JOINTS OF 9.625 40# J55 CASING SHOE AT 2680' BAFFLE AT 2640'
	16:00 - 17:00	1.00	DRLSUR	05	D	P		CIRCULATE AND CONDITION MUD
	17:00 - 20:00	3.00	DRLSUR	12	E	P		HOLD SAFETY MEETING. TEST LINES TO 2000 PSI. PUMP 30 BBLs OF 8.4# H2O AHEAD, FULL RETURNS
								PUMP 20 BBLs OF 8.4# GEL WATER AHEAD. PUMP 250 SX(170 BBLs) 11# 3.82 YIELD LEAD CEMENT, PUMP 200 SX (41 BBLs) OF 15.8# 1.15 YIELD TAIL(2% CALC, 1/4# /SK OF FLOCELE).DROP PLUG ON FLY AND DISPLACE W201 BBLs OF 8.4# H2O. LIFT PRESSURE WAS 540 PSI, BUMP PLUG AND HOLD 1040 PSI FOR 5 MIN. FLOAT HELD, FULL RETURNS THRU OUT JOB ,30 BBLs LEAD CEMENT TO SURF, CEMENT FELL BACK RUN 200' OF 1" PIPE AND PUMP 300 SX OF TAIL CEMENT NO CEMENT TO SURFACE
8/12/2011	2:30 - 4:00	1.50	MIRU	01	C	P		RDRT - SKID RIG 40' TO THE #4 WELL ON PAD (BLACKHAWK) RURT
	4:00 - 5:30	1.50	DRLPRO	14	A	P		N/UP BOPE
	5:30 - 8:30	3.00	DRLPRO	15	A	P		TEST BOPE, RAMS, CHOKE, CHOKE LINE, MANUAL VALVES, FLOOR VALVES, HCR & IBOP 250 LOW 5000 HIGH, ANNULAR 250 LOW 2500 HIGH, CASING 1500
	8:30 - 9:00	0.50	DRLPRO	14	B	P		INSTALL WEARBUSHING
	9:00 - 10:00	1.00	DRLPRO	06	A	P		P/UP BIT #1 HUGHES Q506F & HUNTING MUD MOTOR .21 RPG 1.80 deg, SCRIBE & ORIENT DIRECTIONAL TOOLS, SURFACE CHECK
	10:00 - 11:30	1.50	DRLPRO	08	B	Z		CHANGE SAVER SUB & MUD SAVER ACTUTOR
	11:30 - 12:00	0.50	DRLPRO	07	A	P		RIG SER
	12:00 - 14:00	2.00	DRLPRO	06	A	P		RIH TAG CEMENT @ 2579'
	14:00 - 15:30	1.50	DRLPRO	07	B	P		LEVEL & CENTER DERRICK, INSTALL ROTATING HEAD
	15:30 - 16:30	1.00	DRLPRO	02	F	P		DRILL CEMENT, FE & RATHOLE F/2579' TO 2710'
	16:30 - 0:00	7.50	DRLPRO	02	D	P		DRILL/SLIDE F/2710' TO 3945' (1235' @ 164fph0 MW 8.4, VIS 27, WOB 20, RPM 45, MM RPM 108, TQ 7/9, SPM 105, GPM 515, PSI OFF/ON 1300/1750, PU 133, SO 110. ROT 116, SLIDE 2767 2775, 2857 2873 (24'/50 hrs 6% - ROT 1211/7 hrs 94%)

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23L1BS GREEN		Spud Conductor: 6/4/2011		Spud Date: 7/1/2011	
Project: UTAH-UINTAH		Site: NBU 921-23E PAD		Rig Name No: ENSIGN 146/146, PROPETRO 11/11	
Event: DRILLING		Start Date: 5/25/2011		End Date: 8/22/2011	
Active Datum: RKB @4,876.00usft (above Mean Sea Level)		UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2201/NW/0/477/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/13/2011	0:00 - 14:00	14.00	DRLPRO	02	D	P		DRILL/SLIDE F/3945' TO 6030' (2085' @ 149fph) MW 8.8, VIS 29, LCM 5%, WOB 20, RPM 45, MM RPM 108, TQ 7/9, SPM 105, GPM 515, PSI OFF/ON /17001950, PU198, SO 130, ROT 145, SLIDE 4489 4504, 4942 4956, 5305 5317, 5576 5588, (SLIDE 53/1 hr 7% - ROT 2032'/13 hrs 93%) MUD UP SYSTEM @ 5870" TO CONTROL WATER FLOW - BYPASSED SHAKERS @ 6300' RAISE LCM TO 5% TO CONTROL LOSSES
	14:00 - 14:30	0.50	DRLPRO	07	A	P		RIG SER
	14:30 - 0:00	9.50	DRLPRO	02	D	P		DRILL/SLIDE F/6030' TO 6890' (860' @ 90fph) MW 9.3, VIS 35, LCM 5%, WOB 20, RPM 45, MM RPM 108, TQ 7/10, SPM 105, GPM 515, PSI OFF/ON 1750/2065, PU 184, SO 144, ROT 159, SLIDE 6030 6040, 6120 6132, 6211 6223, 6664 6680 (SLIDE 50'/1 hr 10% - ROT 810'/8.5 hrs 90%)
8/14/2011	0:00 - 2:30	2.50	DRLPRO	02	D	P		DRILL/SLIDE F/6890' TO 7027' (137' @ 55fph) MW 9.5, VIS 35, LCM 5%, WOB 20, RPM 45, MM RPM 108, TQ 7/10, SPM 105, GPM 515, PSI OFF/ON 1750/2065, PU 180, SO 144, ROT 159 (ROT 100%)
	2:30 - 7:30	5.00	DRLPRO	08	A	Z		PECO SYSTEM - UNABLE TO RESET OR COMMUNICATE WITH PECO SYS.. UNABLE TO USE AUTO DRILLER, WEIGHT INDICATOR, RIG SMART OR MOVE BLOCKS - ELECTRICAN ON LOCATION TROUBLESHOOT - RESET ALL PLC..BLACKED OUT RIG - REGAINED COMMUNICATION W/PECO
	7:30 - 12:00	4.50	DRLPRO	02	D	P		DRILL/SLIDE F/7027' TO 7208' (181' @ 40fph) MW 9.4, VIS 34, LCM 5%, WOB 20, RPM 45, MM RPM 108, TQ 7/9, SPM 105, GPM 515, PSI OFF/ON 1900/2200, PU 184 SO155 ROT 184, SLIDE 7027 7039, 7117 7129 (SLIDE 24'/1.25 hrs 27% - ROT 157'/ 3.25 hrs 73%)
	12:00 - 12:30	0.50	DRLPRO	07	A	P		RIG SER
	12:30 - 0:00	11.50	DRLPRO	02	D	P		DRILL/SLIDE F/7208' TO 7702' (494' @ 43fph) MW 9.5, VIS 37, LCM 5%, WOB 20, RPM 45, MM RPM 108, TQ 7/11, SPM 105, GPM 515, PSI OFF ON 2025/2350, PU 202, SO 153, ROT 175, SLIDE 7661 7677 (SLIDE 16'/1.50 hrs 4% - ROT 478'/11 hrs 96%)
	0:00 - 12:00	12.00	DRLPRO	02	D	P		DRILL/SLIDE F/7702' TO 8296' (594' @ 50fph) MW 10.2, VIS 40, LCM 5%, WOB 24, RPM 35, MM RPM 100, TQ 8/11, SPM 98, GPM 480, PSI OFF/ON 1940/2290, PU 222 SO 170 ROT 181, SLIDE 7933 7949 (SLIDE 16'/1 hr 8% - ROT 578'/11 hrs 92%)
8/15/2011	12:00 - 12:30	0.50	DRLPRO	07	A	P		RIG SER
	12:30 - 17:30	5.00	DRLPRO	02	D	P		DRILL/SLIDE F/8296' TO 8568' (272' @ 55fph) MW 10.5, VIS 40, LCM 5%, WOB 24, RPM 35, MM RPM 100, TQ 8/11, SPM 98, GPM 480, PSI OFF/ON 2025/2400, PU 222 SO 170 ROT 181, (ROT 100%)
	17:30 - 19:00	1.50	DRLPRO	22	G	X		LOST RETURNS @ 8568', RACKED BACK 1 STAND, WORKED PIPE FROM 8568' TO 8478' CIRC @ REDUCED PUMP RATE 50 SPM @ 245 GPM - RAISE LCM TO 14% REGAINED RETURNS - LOST 100 BBLs

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23L1BS GREEN		Spud Conductor: 6/4/2011		Spud Date: 7/1/2011	
Project: UTAH-UINTAH		Site: NBU 921-23E PAD			Rig Name No: ENSIGN 146/146, PROPETRO 11/11
Event: DRILLING		Start Date: 5/25/2011		End Date: 8/22/2011	
Active Datum: RKB @4,876.00usft (above Mean Sea Level)		UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2201/W/0/477/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	19:00 - 0:00	5.00	DRLPRO	02	D	P		DRILL/SLIDE F/8568' TO 8832' (264' @ 53fph) MW 10.5, VIS 40, LCM 10%, WOB 24, RPM 35, MM RPM 100, TQ 8/11, SPM 98, GPM 480, PSI OFF/ON 2100/2450, PU 225 SO 173 ROT 189, (ROT 100%)
8/16/2011	0:00 - 13:30	13.50	DRLPRO	02	D	P		DRILL/SLIDE F/8832' TO 9293' (461' @ 35fph) MW 11.0, VIS 38, LCM 7%, WOB 24, RPM 35, MM RPM 100, TQ 8/11, SPM 98, GPM 480, PSI OFF/ON 2200/2520, PU 235 SO 173 ROT 199, SLIDE 9111 9118, 9202 9212 (SLIDE 15 1/2 hrs 14% - ROT 446'/11.5 hrs 86%)
	13:30 - 13:30	0.00	DRLPRO					
	13:30 - 13:30	0.00	DRLPRO	07	A	P		RIG SER
	13:30 - 18:30	5.00	DRLPRO	02	D	P		DRILL/SLIDE F/9293' TO 9425' (132' @ 26fph) MW 11.0, VIS 39, LCM 90%, WOB 25, RPM 35, MM RPM 100, TQ 8/11, SPM 9%, GPM 480, PSI OFF/ON 2200/2470, PU 245 SO 173 ROT 205, SLIDE 9293 9301 (SLIDE 8 1/1 hr 18% - ROT 124 1/4.5 hrs 82%)
	18:30 - 0:00	5.50	DRLPRO	06	A	P		POOH F/NEW BIT & MUD MOTOR - BACKREAM F/9425' 8975' (5 STANDS) - CONTINUE POOH TO 2800' @ REPORT TIME - NO PROBLEMS ON TRIP OUT
8/17/2011	0:00 - 2:30	2.50	DRLPRO	06	A	P		POOH F/2800' TO SURFACE - L/DN MUD MOTOR & BIT
	2:30 - 5:30	3.00	DRLPRO	06	A	P		P/UP BIT #2 HUGHES Q506FX & HUNTING MUD MOTOR .16 RPG 1.50 deg, RIH TO 2600' - FILL & BREAK CIRC
	5:30 - 7:30	2.00	DRLPRO	09	A	P		SLIP & CUT DRILL LINE
	7:30 - 12:00	4.50	DRLPRO	06	A	P		CONTINUE RIH F/2600' TO 5851' WASH THROUGH A TIGHT SPOT. FINISH TRIPPING IN THE HOLE.
	12:00 - 0:00	12.00	DRLPRO	02	D			DRILL/SLIDE F/9425' TO 9990' (565' @ 47.1fph) MW 11.2, VIS 39, LCM 9%, WOB 25, RPM 35, MM RPM 100, TQ 8/11, SPM 9%, GPM 480, PSI OFF/ON 2400/2550, PU/S/O/ROT 250/202/210, SLIDE 9425 9476 (SLIDE 30 1/2 hr 18% - ROT 535'/10HR hrs 82%)
8/18/2011	0:00 - 6:00	6.00	DRLPRO	02	D	P		DRILL F/ 9990'- 10150'(160' @ 26.7 fph) MW 11.6, VIS 39, LCM 9%, WOB 25, RPM 35, MM RPM 100, TQ 8/11, SPM 9%, GPM 480, PSI OFF/ON 2400/2550, PU/S/O/ROT 250/202/210,
	6:00 - 17:00	11.00	DRLPRO	02	D	P		DRILL F/ 10150'- 10382' (232' @ 21.1 fph) MW 11.7, VIS 39, LCM 9%, WOB 25, RPM 35, MM RPM 100, TQ 8/11, SPM 9%, GPM 480, PSI OFF/ON 2580/2850, PU/S/O/ROT 247/187/214, WE HAD SOME UNUSUAL PRESSURE SPIKES. WE HAD TO BACK OF OF THE WEIGHT AND PUMP STROKES FOR A SHORT TIME. THE BIT NEVER SEEMED TO REALLY DRILL VERY GOOD AFTER THAT
	17:00 - 17:30	0.50	DRLPRO	07	A	P		RIG SERVICE
	17:30 - 0:00	6.50	DRLPRO	02	D	P		DRILL F/ 10382'-10481 (99' @ 15.2 fph) MW 11.8, VIS 39, LCM 9%, WOB 25, RPM 35, MM RPM 71, TQ 8/11, SPM 9%, GPM 480, PSI OFF/ON 2330/2650, PU/S/O/ROT 247/198/214,

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23L1BS GREEN		Spud Conductor: 6/4/2011		Spud Date: 7/1/2011	
Project: UTAH-UINTAH		Site: NBU 921-23E PAD			Rig Name No: ENSIGN 146/146, PROPETRO 11/11
Event: DRILLING		Start Date: 5/25/2011		End Date: 8/22/2011	
Active Datum: RKB @4,876.00usft (above Mean Sea Level)			UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2201/W/0/477/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
8/19/2011	0:00 - 2:00	2.00	DRLPRO	02	D	P		DRILL F/ 10481'-10511' (30' @ 15.0 fph) MW 11.9, VIS 39, LCM 9%, WOB 25, RPM 35, MM RPM 71, TQ 8/11, SPM 9%, GPM 480, PSI OFF/ON 2330/2650, PU/S/O/ROT 247/198/214,
	2:00 - 10:00	8.00	DRLPRO	06	A	S		PUMPED OUT 12 STANDS. PUMPED A SLUG. TOH F/ BIT #3.
	10:00 - 19:30	9.50	DRLPRO	06	A	S		CHANGED OUT THE MUD MOTOR FOR A HUNTING .16 STRAIGHT MM, PU A Q 506F AND TIH. WE HAD TO WASH THROUGH BRIDGES @ 4978' AND 5928'.
	19:30 - 0:00	4.50	DRLPRO	02	D	P		DRILL F/ 10511'-10684' (173' @ 38.4 fph) MW 12.0, VIS 42, LCM 9%, WOB 25, RPM 35, MM RPM 71, TQ 8/11, SPM 9%, GPM 480, PSI OFF/ON 2160/2450, PU/S/O/ROT 240/202/213, 12' FLARE BOTTOMS UP ON THE TRIP, 3' FLARE INTERMITTENT WHEN DRILLING
8/20/2011	0:00 - 11:30	11.50	DRLPRO	02	D	P		DRILL F/ 10684'-11100' (416' @ 36.2 fph) MW 12.5, VIS 42, LCM 9%, WOB 25, RPM 35, MM RPM 71, TQ 8/11, SPM 9%, GPM 480, PSI OFF/ON 2180/2500, PU/S/O/ROT 253/202/218, 12' FLARE BOTTOMS UP ON THE TRIP, 8' FLARE INTERMITTENT WHEN DRILLING
	11:30 - 13:30	2.00	DRLPRO	05	C	P		CIRC./COND FOR WPER TRIP
	13:30 - 21:00	7.50	DRLPRO	06	E	P		PUMPED OFF BOTTOM F/ 11100' - 9797', PUMPED A SLUG, TOH (WPER TRIP) TO THE CASING SHOE. RIG SERVICE, X/O SAVER SUB
	21:00 - 21:30	0.50	DRLPRO	07	A	P		TIH BROKE CIRC. @ THE SHOE AND 4700'
	21:30 - 0:00	2.50	DRLPRO	06	E	P		PRECAUTIONARY WASHED THROUGH SPOT @ 4764'
8/21/2011	0:00 - 2:00	2.00	DRLPRO	06	E	P		TIH TO 9277' WHILE ATTEMPTING TO BREAK CIRC. THE DRILL STRING PRESSURED UP. MADE MULTIPLE ATTEMPTS TO BREAK IT LOOSE .
	2:00 - 11:00	9.00	DRLPRO	06	G	S		DRILL STRING PLUGGED WITH DRILL CUTTINGS TOH WET. LAY DOWN DIRECTIONAL TOOLS AND MM
	11:00 - 11:30	0.50	DRLPRO	14	A	P		PULL WEAR BUSHING
	11:30 - 15:30	4.00	DRLPRO	11	D	P		S/M WITH BAKER RU AND RAN TRIPLE COMBO LOGS. LOGS STOPPED @ 5855'. LOGGED OUT TO SURFACE
	15:30 - 19:00	3.50	DRLPRO	06	A	P		PU ROLLER CONE BIT AND BIT SUB. TIH FOR A CLEANOUT RUN. I WAS NOTIFIED ON E-MAIL TO FORGET THE WPER TRIP AND RUN CASING. TOH PULLED THE WEAR BUSHING
	19:00 - 0:00	5.00	CSG	12	C	P		RIG UP AND BEGIN TO RUN 253 JTS. OF 4.5"/11.6# BTC/P-110 CASING + 2 MARKERS
8/22/2011	0:00 - 6:30	6.50	CSG	12	C	P		RAN 253 JTS. OF 4.5"/11.6# BTC/P-110 CASING + 2 MARKERS. CASIN G LANDED 2 11083', FLOST COLLAR @ 11036', MARKER JOINTS @ 7702' & 4890'.
	6:30 - 7:30	1.00	CSG	05	D	P		CIRC CASING ON BOTTOM. BOTTOMS UP FLARE 10-12'. CIRC. GAS OUT

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23L1BS GREEN		Spud Conductor: 6/4/2011		Spud Date: 7/1/2011	
Project: UTAH-UINTAH		Site: NBU 921-23E PAD		Rig Name No: ENSIGN 146/146, PROPETRO 11/11	
Event: DRILLING		Start Date: 5/25/2011		End Date: 8/22/2011	
Active Datum: RKB @4,876.00usft (above Mean Sea Level)		UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2201/W/0/477/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:30 - 10:30	3.00	CSG	12	E	P		HELD A SAFETY MEETIN G W/ BJ. PRESSURE TESTED LINES @ 5000#. PUMPED A 15 BBL. WATER SPACER, 20SX (9 BBL.) 11.6# 2.53 YLD SCAVENGER CEMENT, 690SX (237 BBL.) OF 12.6# 1.93 YLD. LEAD, 1270 SX (296 BBL.) 14.3# 1.31YLD TAIL. DISPLACED W/ 172 BBL. OF CLAYTREAT WATER. FINAL LIFT 3500 PSI, PLUG BUMPED W/ 4137# 8/22/2011 10:06AM. PRESSURE HELD FOR 5 MIN. 2.5 BBL. RETURNED TO THE TRUCK. FLOATS HELD. 13 BBL. OF CEMENT BACK TO THE PIT.
	10:30 - 11:30	1.00	CSG	14		P		SET THE SLIPS THROUGH THE STACK. 95K WEIGHT ON THE C-22 SLIPS.
	11:30 - 13:30	2.00	RDMO	01	E	P		CLEAN PITS AND PREP TO SKID RIG RELEASED 8/22/2011 13:30

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	NBU 921-23L1BS GREEN	Wellbore No.	OH
Well Name	NBU 921-23L1BS	Wellbore Name	NBU 921-23L1BS
Report No.	1	Report Date	9/27/2011
Project	UTAH-UINTAH	Site	NBU 921-23E PAD
Rig Name/No.		Event	COMPLETION
Start Date	9/27/2011	End Date	10/4/2011
Spud Date	7/1/2011	Active Datum	RKB @4,876.00usft (above Mean Sea Level)
UWI	SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2201/N/0/477/0/0		

1.3 General

Contractor	CASEDHOLE SOLUTIONS	Job Method	PERFORATE	Supervisor	KEN WARREN
Perforated Assembly	PRODUCTION CASING	Conveyed Method	WIRELINE		

1.4 Initial Conditions

Fluid Type		Fluid Density	
Surface Press		Estimate Res Press	
TVD Fluid Top		Fluid Head	
Hydrostatic Press		Press Difference	
Balance Cond	NEUTRAL		

1.5 Summary

Gross Interval	7,966.0 (usft)-10,733.0 (usft)	Start Date/Time	9/28/2011 12:00AM
No. of Intervals	30	End Date/Time	9/28/2011 12:00AM
Total Shots	0	Net Perforation Interval	47.00 (usft)
Avg Shot Density	0.00 (shot/ft)	Final Surface Pressure	
		Final Press Date	

2 Intervals

2.1 Perforated Interval

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diameter (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/28/2011 12:00AM	UINTAH			7,966.0	7,970.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTION	

2.1 Perforated Interval (Continued)

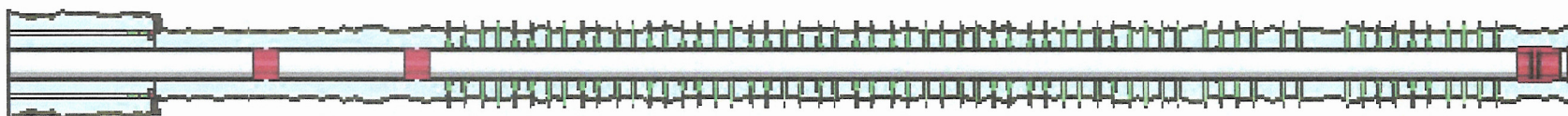
Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/28/2011 12:00AM	UINTA/			8,022.0	8,023.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,058.0	8,059.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,107.0	8,108.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,138.0	8,139.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,243.0	8,244.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,268.0	8,269.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,295.0	8,296.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,340.0	8,341.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,436.0	8,438.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,467.0	8,468.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,552.0	8,553.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,679.0	8,681.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,792.0	8,794.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,840.0	8,841.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,922.0	8,923.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			8,953.0	8,954.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			9,077.0	9,079.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			9,118.0	9,119.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			9,173.0	9,174.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			9,207.0	9,208.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			9,224.0	9,225.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Carr Manuf	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
9/28/2011 12:00AM	UINTA/			9,482.0	9,486.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			9,516.0	9,518.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			9,832.0	9,838.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			10,559.0	10,561.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			10,580.0	10,581.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			10,620.0	10,621.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			10,719.0	10,720.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
9/28/2011 12:00AM	UINTA/			10,732.0	10,733.0			0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23L1BS GREEN				Spud Conductor: 6/4/2011				Spud Date: 7/1/2011			
Project: UTAH-UINTAH				Site: NBU 921-23E PAD					Rig Name No: GWS 1/1		
Event: COMPLETION				Start Date: 9/27/2011						End Date: 10/4/2011	
Active Datum: RKB @4,876.00usft (above Mean Sea Level)				UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2201/W/0/477/0/0							
Date		Time Start-End		Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation	
9/27/2011		7:00 - 15:00		8.00	COMP	33	C	P		MIRU B&C TESTERS, HAVE RNI FILL SURFACE CSG, HOOK UP TESTERS TO 4-1/2 CSG & PRESWSURE TEST. 1000# W/ 18# LOSS IN 15 MIN. 3500# W/ 40# LOSS IN 15 MIN. 9000# W/ 133# LOSS IN 30 MIN. NO COMMUNICATION ON SURFACE CSG.	
9/28/2011		7:00 - 9:30		2.50	COMP	36	B	P		HSM, R/U & PRE FRAC REVIEW, MIRU CASED HOLE SOLUTIONS & SUPERIOR FRAC EQUIP, PRESSURE TEST SUUURFACE LINES TO 10,000#	

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23L1BS GREEN		Spud Conductor: 6/4/2011		Spud Date: 7/1/2011	
Project: UTAH-UINTAH		Site: NBU 921-23E PAD			Rig Name No: GWS 1/1
Event: COMPLETION		Start Date: 9/27/2011		End Date: 10/4/2011	
Active Datum: RKB @4,876.00usft (above Mean Sea Level)			UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2201/W/0/477/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	9:30 - 18:00	8.50	COMP	36	B	P		<p>PERF & FRAC FOLLOWING WELL AS PER DESIGN W/ 30/50 MESH SAND & SLK WTR. ALL CBP'S ARE HALIBURTON 8K CBP'S. REFER TO STIM PJR FOR FLUID, SAND AND CHEMICAL VOLUME PUMP'D STG #1 P/U RIH W/ PERF GUN, PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #1] WHP=381#, BRK DN PERFS=4,413#, @=4.8 BPM, INJ RT=50.4, INJ PSI=6,248#, INITIAL ISIP=3,683#, INITIAL FG=.78, FINAL ISIP=4,016#, FINAL FG=.82, AVERAGE RATE=50.1, AVERAGE PRESSURE=6,573#, MAX RATE=50.9, MAX PRESSURE=7,809#, NET PRESSURE INCREASE=333#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9,868', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #2] WHP=1,670#, BRK DN PERFS=5,635#, @=4.2 BPM, INJ RT=41.8, INJ PSI=5,687#, INITIAL ISIP=3,073#, INITIAL FG=.75, FINAL ISIP=2,966#, FINAL FG=.74, AVERAGE RATE=49.4, AVERAGE PRESSURE=5,920#, MAX RATE=51.3, MAX PRESSURE=6,526#, NET PRESSURE INCREASE=-107#, 20/24 83% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9,548', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #3] WHP=981#, BRK DN PERFS=4,555#, @=4.5 BPM, INJ RT=45.5, INJ PSI=5,960#, INITIAL ISIP=2,967#, INITIAL FG=.75, FINAL ISIP=3,117#, FINAL FG=.77, AVERAGE RATE=48.6, AVERAGE PRESSURE=5,761#, MAX RATE=51.3, MAX PRESSURE=6,309#, NET PRESSURE INCREASE=150#, 20/24 83% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9,255', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW. SWF.N. HSM,</p>
9/29/2011	7:00 - 7:15	0.25	COMP	36	B	P		

US ROCKIES REGION

Operation Summary Report

Well: NBU 921-23L1BS GREEN		Spud Conductor: 6/4/2011		Spud Date: 7/1/2011	
Project: UTAH-UINTAH		Site: NBU 921-23E PAD			Rig Name No: GWS 1/1
Event: COMPLETION		Start Date: 9/27/2011		End Date: 10/4/2011	
Active Datum: RKB @4,876.00usft (above Mean Sea Level)			UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2201/W/0/477/0/0		

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 18:00	10.75						<p>FRAC STG #4] WHP=1,997#, BRK DN PERFS=5,363#, @=4.7 BPM, INJ RT=48.9, INJ PSI=6,182#, INITIAL ISIP=2,976#, INITIAL FG=.76, FINAL ISIP=2,894#, FINAL FG=.75, AVERAGE RATE=49.7, AVERAGE PRESSURE=5,740#, MAX RATE=51.3, MAX PRESSURE=6,375#, NET PRESSURE INCREASE=-82#, 21/24 85% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,984', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #5] WHP=1,721#, BRK DN PERFS=4,084#, @=4.8 BPM, INJ RT=46.6, INJ PSI=5,949#, INITIAL ISIP=2,568#, INITIAL FG=.73, FINAL ISIP=2,851#, FINAL FG=.76, AVERAGE RATE=42.8, AVERAGE PRESSURE=6,220#, MAX RATE=50, MAX PRESSURE=6,482#, NET PRESSURE INCREASE=283#, 18/20 90% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #6] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,711', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #6] WHP=834#, BRK DN PERFS=2800#, @=4.5 BPM, INJ RT=50.7, INJ PSI=5,973#, INITIAL ISIP=2,137#, INITIAL FG=.69, FINAL ISIP=2,824#, FINAL FG=.77, AVERAGE RATE=50.9, AVERAGE PRESSURE=5,459#, MAX RATE=51.6, MAX PRESSURE=6,031#, NET PRESSURE INCREASE=687#, 18/24 75% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,371', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW</p> <p>FRAC STG #7] WHP=539#, BRK DN PERFS=2,763#, @=4.6 BPM, INJ RT=51.1, INJ PSI=5,207#, INITIAL ISIP=1,649#, INITIAL FG=.64, FINAL ISIP=2,533#, FINAL FG=.75 AVERAGE RATE=50.3, AVERAGE PRESSURE=5,091#, MAX RATE=52.8, MAX PRESSURE=6,089#, NET PRESSURE INCREASE=884#, 19/24 80% CALC PERFS OPEN. X OVER TO WIRE LINE</p> <p>PERF STG #8] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,089', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW. SWMFN.</p>

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23L1BS GREEN		Spud Conductor: 6/4/2011		Spud Date: 7/1/2011	
Project: UTAH-UINTAH		Site: NBU 921-23E PAD			Rig Name No: GWS 1/1
Event: COMPLETION		Start Date: 9/27/2011		End Date: 10/4/2011	
Active Datum: RKB @4,876.00usft (above Mean Sea Level)		UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2201/W/0/477/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/30/2011	6:45 - 7:00	0.25	COMP	48		P		HSM,
	7:00 - 7:00	0.00	COMP	36	B	P		FRAC STG #8] WHP=1,270#, BRK DN PERFS=2,792#, @=3.8 BPM, INJ RT=50.9, INJ PSI=5,825#, INITIAL ISIP=1,517#, INITIAL FG=.63, FINAL ISIP=2,572#, FINAL FG=.76, AVERAGE RATE=50.7, AVERAGE PRESSURE=5,207#, MAX RATE=52, MAX PRESSURE=6,068#, NET PRESSURE INCREASE=1,055#, 16/24 68% CALC PERFS OPEN. X OVER TO WIRE LINE P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILL @=7,916' TOTAL FLUID PUMP'D=13,003 BBLS TOTAL SAND PUMP'D=292,787#
10/3/2011	7:00 - 7:15	0.25	COMP	48		P		HSM, SLIPS, TRIPS & FALLS, P/U TBG WATCH FOR RABBIT
	7:15 -		COMP	31	I	P		MIRU, SPOT EQUIP, ND WH, NU 10K BOP, RU FLOOR & TBG EQUIP, RU HAL 9000 & FLOWLINE TO PIT, SPOT TBG TRAILER, PU TBG, REMOVE THREAD PROTECTORS, TALLY & DRIFT TBG TO KILL PLUG, RU P/S, FILL TBG, BREAK CIRC, PRESS TEST BOP TO 3,000 PSIFOR 15 MIN, LOST 0 PSI, SURFACE CSG VALVE OPEN & LOCKED, START DRLG PLUGS. C/O 15' SAND, TAG 1ST PLUG @ 7,920' DRL PLUG IN 9 MIN. 700 PSI INCREASE RIH, CSG PRESS 50 PSI. C/O 25' SAND, TAG 2ND PLUG @ 8,089' DRL PLUG IN 10 MIN. 400 PSI INCREASE RIH, CSG PRESS 50 PSI. C/O 50' SAND, TAG 3RD PLUG @ 8,371' DRL PLUG IN 8 MIN. 700 PSI INCREASE RIH, CSG PRESS 250 PSI. CIRC & LET WELL CLEAN UP FOR 30 MIN, D/O REMAINING PLUGS IN AM, EOT @ 8,400', SWI, SDFN.
10/4/2011	7:00 - 7:15	0.25	COMP	48		P		HSM, SLIPS, TRIPS & FALLS, D/O PLUGS

US ROCKIES REGION
Operation Summary Report

Well: NBU 921-23L1BS GREEN		Spud Conductor: 6/4/2011		Spud Date: 7/1/2011	
Project: UTAH-UINTAH		Site: NBU 921-23E PAD		Rig Name No: GWS 1/1	
Event: COMPLETION		Start Date: 9/27/2011		End Date: 10/4/2011	
Active Datum: RKB @4,876.00usft (above Mean Sea Level)		UWI: SW/NW/0/9/S/21/E/23/0/0/26/PM/N/2201/NW/0/477/0/0			

Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 17:00	9.75	COMP	44	C	P		<p>SICP 1,900 PSI, OPEN WELL BLEED OFF PRESS, OPEN RAMS, FINISH D/O REMAINING 5 PLUGS, SURFACE CSG VALVE OPEN & LOCKED.</p> <p>C/O 25' SAND, TAG 4TH PLUG @ 8,711' DRL PLUG IN 9 MIN. 500 PSI INCREASE RIH, CSG PRESS 250 PSI.</p> <p>C/O 50' SAND, TAG 5TH PLUG @ 8,984' DRL PLUG IN 10 MIN. 500 PSI INCREASE RIH, CSG PRESS 200 PSI.</p> <p>C/O 30' SAND, TAG 6TH PLUG @ 9,265' DRL PLUG IN 8 MIN. 400 PSI INCREASE RIH, CSG PRESS 300 PSI.</p> <p>C/O 25' SAND, TAG 7TH PLUG @ 9,548' DRL PLUG IN 9 MIN. 500 PSI INCREASE RIH, CSG PRESS 400 PSI.</p> <p>C/O 25' SAND, TAG 8TH PLUG @ 9,868' DRL PLUG IN 10 MIN. 500 PSI INCREASE RIH, CSG PRESS 450 PSI.</p> <p>PBTD @ 11,036', BTM PERF @ 10,733', RIH TAG @ 10,800', P/U POWER SWIVEL, C/O FROM 10,800' TO 10,895', 162' PAST BTM PERF W/ 343 JTS 2 3/8" L-80 TBG, LD 14 JTS, PU & STRIP IN TBG HANGER & LAND TBG W/ 329 JTS 2 3/8" L-80, EOT 10,448.15'.</p> <p>RD POWER SWIVEL, FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL TO SHEAR OFF BIT W/ 3,200 PSI, LET BIT FALL FOR 20 MIN.</p> <p>TURN OVER TO FLOW BACK CREW, RD & MOVE TO NEXT WELL ON PAD.</p> <p>KB= 25' 4 1/16" WEATHERFORD HANGER= .83' TBG DELIVERED 349 JTS 329 JTS 2 3/8" L-80 = 10,431.12' TBG USED 329 JTS POBS= 2.20' TBG RETURNED 20 JTS EOT @ 10,448.15'</p> <p>TWTR= 13,003 BBLS TWR= 2,500 BBLS TWLTR= 10,503 BBLS</p>
	14:00 - 14:00	0.00	PROD	50				WELL TURNED TO SALES @ 1400 HR ON 10/4/11 - 1000 MCFD, 1920 BWPD, CP 2500#, FTP 2350#, CK 20/64"
10/10/2011	7:00 -			50				WELL IP'D ON 10/10/11 - 3657 MCFD, 0 BOPD, 720 BWPD, CP 2137#, FTP 1544#, CK 20/64", LP 87#, 24 WRS

Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: UINTAH_NBU 921-23E PAD

Well: NBU 921-23L1BS

Wellbore: NBU 921-23L1BS

Section:

SHL:

Design: NBU 921-23L1BS (wp02) ENSIGN 146

Latitude: 40.022825

Longitude: -109.526028

GL: 4862.00

KB: 14' RKB + 4862' GL @ 4876.00ft (ensign 146)

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4900.00	4958.82	Top Wasatch
7756.00	7814.83	Top Mesaverde (top of cylinder)
8703.00	8761.84	MVU21
9175.00	9233.85	MVL1



Weatherford®



Azimuths to True North
Magnetic North: 11.09°

Magnetic Field
Strength: 52337.1snT
Dip Angle: 65.88°
Date: 6/21/2011
Model: IGRF2010

WELL DETAILS: NBU 921-23L1BS

+N/-S	+E/-W	Northing	Ground Level: Easting	Latitude	Longitude	Slot
0.00	0.00	14537769.75	2053085.27	40.022825	-109.526028	

CASING DETAILS

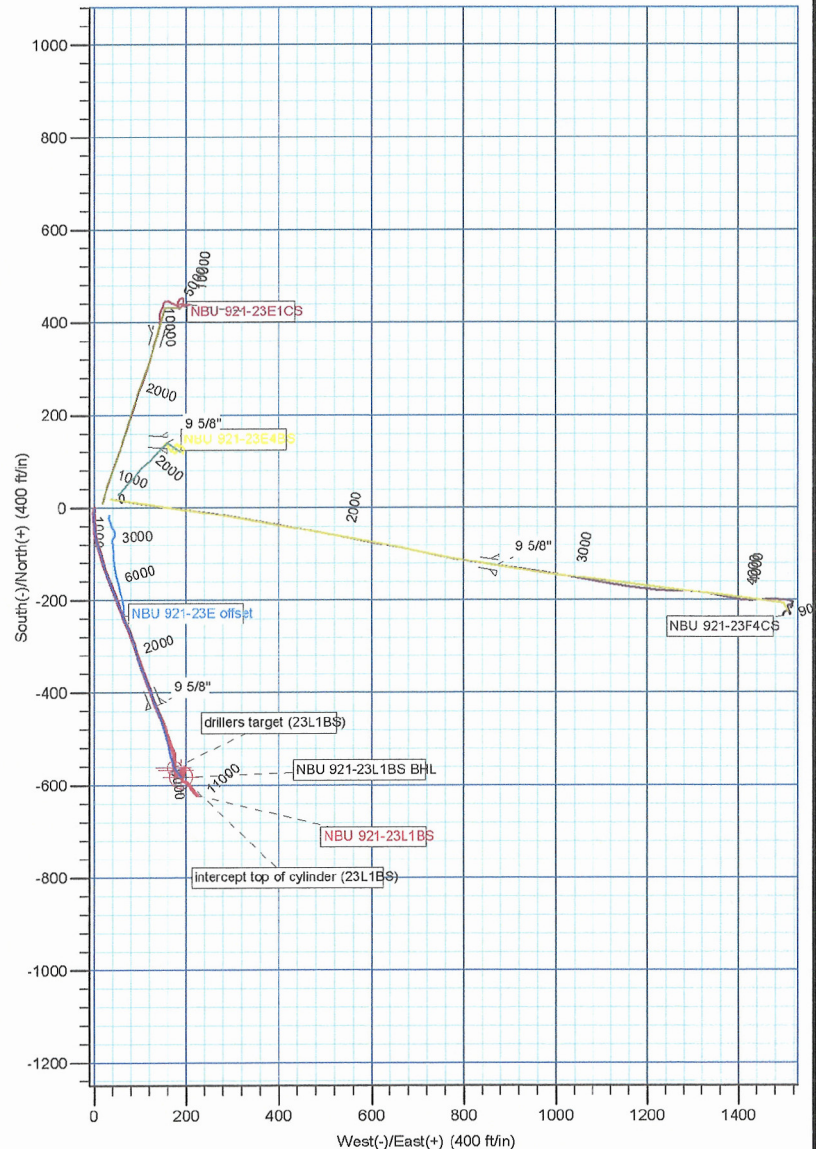
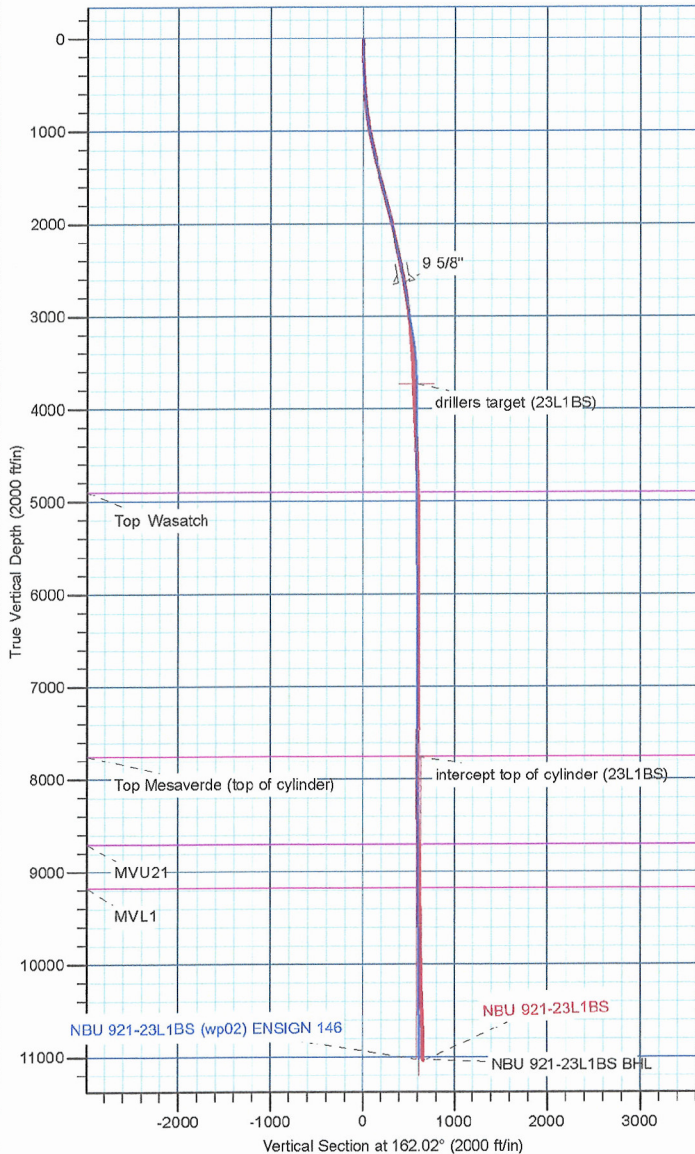
TVD	MD	Name	Size
2631.45	2680.01	9 5/8"	9-5/8

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
drillers target (23L1BS)	3736.00	-561.60	173.74	14537211.10	2053268.27	40.021283	-109.525408	Circle (Radius: 15.00)
Intercept top of cylinder (23L1BS)	7756.00	-567.72	178.30	14537205.06	2053272.93	40.021266	-109.525391	Point
NBU 921-23L1BS BHL	11026.00	-581.64	188.74	14537191.32	2053283.60	40.021228	-109.525354	Circle (Radius: 25.00)

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
2650.00	10.00	158.87	2601.90	-423.70	132.55	0.00	0.00	443.92
2800.00	10.00	158.87	2749.62	-448.00	141.94	0.00	0.00	469.93
2869.64	9.26	164.66	2818.28	-459.04	145.60	1.75	130.23	481.57
3265.72	9.26	164.66	3209.20	-520.50	162.46	0.00	0.00	545.23
3794.82	0.00	0.00	3736.00	-561.64	173.74	1.75	180.00	587.84
11084.88	0.39	143.13	11026.00	-581.64	188.74	0.01	143.13	611.49



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 921-23L1BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	14' RKB + 4862' GL @ 4876.00ft (ensign 146)
Site:	UINTAH_NBU 921-23E PAD	MD Reference:	14' RKB + 4862' GL @ 4876.00ft (ensign 146)
Well:	NBU 921-23L1BS	North Reference:	True
Wellbore:	NBU 921-23L1BS	Survey Calculation Method:	Minimum Curvature
Design:	NBU 921-23L1BS	Database:	edm5000p

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	UINTAH_NBU 921-23E PAD			
Site Position:		Northing:	14,537,799.03 ft	Latitude: 40.022903
From:	Lat/Long	Easting:	2,053,137.43 ft	Longitude: -109.525840
Position Uncertainty:	0.00 ft	Slot Radius:	0 "	Grid Convergence: 0.95 °

Well	NBU 921-23L1BS			
Well Position	+N-S	0.00 ft	Northing: 14,537,769.76 ft	Latitude: 40.022825
	+E-W	0.00 ft	Easting: 2,053,085.26 ft	Longitude: -109.526028
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level: 4,862.00 ft

Wellbore	NBU 921-23L1BS				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/21/2011	11.09	65.88	52,337

Design	NBU 921-23L1BS			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 10.00
Vertical Section:	Depth From (TVD) (ft)	+N-S (ft)	+E-W (ft)	Direction (°)
	10.00	0.00	0.00	162.54

Survey Program	Date 8/30/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
186.00	2,650.00	Survey #1 (NBU 921-23L1BS)	MWD	MWD - Standard
2,717.00	11,100.00	Survey #2 (NBU 921-23L1BS)	MWD	MWD - Standard

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
10.00	0.00	0.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	
186.00	0.13	60.84	186.00	0.10	0.17	-0.04	0.07	0.07	0.00	
270.00	1.21	176.80	269.99	-0.74	0.31	0.80	1.51	1.29	138.05	
360.00	2.85	197.07	359.94	-3.83	-0.30	3.56	1.96	1.82	22.52	
450.00	3.31	181.62	449.81	-8.57	-1.03	7.86	1.05	0.51	-17.17	
540.00	4.50	176.75	539.60	-14.69	-0.90	13.74	1.37	1.32	-5.41	
630.00	5.63	176.12	629.24	-22.62	-0.40	21.46	1.26	1.26	-0.70	
720.00	6.42	181.96	718.75	-32.05	-0.27	30.49	1.11	0.88	6.49	
810.00	6.69	178.25	808.16	-42.32	-0.29	40.29	0.56	0.30	-4.12	
900.00	8.06	174.25	897.41	-53.84	0.51	51.51	1.62	1.52	-4.44	

APC
Survey Report



Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 921-23E PAD
Well: NBU 921-23L1BS
Wellbore: NBU 921-23L1BS
Design: NBU 921-23L1BS

Local Co-ordinate Reference: Well NBU 921-23L1BS
TVD Reference: 14' RKB + 4862' GL @ 4876.00ft (ensign 146)
MD Reference: 14' RKB + 4862' GL @ 4876.00ft (ensign 146)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: edm5000p

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
990.00	9.75	165.87	986.33	-67.51	3.00	65.30	2.36	1.88	-9.31
1,080.00	11.19	163.25	1,074.83	-83.26	7.38	81.64	1.68	1.60	-2.91
1,170.00	13.38	163.12	1,162.76	-101.59	12.92	100.79	2.43	2.43	-0.14
1,260.00	14.13	160.75	1,250.18	-121.93	19.56	122.18	1.04	0.83	-2.63
1,350.00	14.25	159.56	1,337.43	-142.68	27.05	144.22	0.35	0.13	-1.32
1,440.00	14.25	157.62	1,424.67	-163.30	35.14	166.32	0.53	0.00	-2.16
1,530.00	14.44	160.75	1,511.86	-184.14	43.06	188.57	0.89	0.21	3.48
1,620.00	14.69	159.75	1,598.97	-205.44	50.71	211.19	0.39	0.28	-1.11
1,710.00	14.81	157.00	1,686.00	-226.73	59.15	234.03	0.79	0.13	-3.06
1,800.00	15.13	156.12	1,772.95	-248.06	68.40	257.15	0.44	0.36	-0.98
1,890.00	14.44	157.37	1,859.97	-269.16	77.47	280.00	0.84	-0.77	1.39
1,980.00	13.63	162.62	1,947.29	-289.64	84.96	301.78	1.68	-0.90	5.83
2,070.00	13.54	162.32	2,034.77	-309.80	91.32	322.92	0.13	-0.10	-0.33
2,160.00	13.38	160.75	2,122.30	-329.66	97.96	343.87	0.44	-0.18	-1.74
2,250.00	12.44	159.75	2,210.02	-348.59	104.75	363.96	1.07	-1.04	-1.11
2,340.00	12.19	159.50	2,297.95	-366.59	111.43	383.13	0.28	-0.28	-0.28
2,430.00	11.63	160.12	2,386.01	-384.02	117.84	401.68	0.64	-0.62	0.69
2,520.00	11.13	159.62	2,474.24	-400.69	123.95	419.42	0.57	-0.56	-0.56
2,610.00	11.00	159.62	2,562.57	-416.88	129.97	436.67	0.14	-0.14	0.00
2,650.00	10.00	158.87	2,601.90	-423.70	132.55	443.95	2.52	-2.50	-1.88
tie on point									
2,717.00	9.51	157.29	2,667.93	-434.23	136.78	455.27	0.83	-0.73	-2.36
2,807.00	8.49	153.57	2,756.82	-447.04	142.61	469.23	1.30	-1.13	-4.13
2,898.00	8.25	159.36	2,846.85	-459.17	147.90	482.39	0.96	-0.26	6.36
2,989.00	8.63	163.49	2,936.87	-471.82	152.14	495.73	0.79	0.42	4.54
3,079.00	7.38	160.24	3,025.99	-483.74	156.02	508.26	1.48	-1.39	-3.61
3,170.00	5.94	159.64	3,116.37	-493.65	159.63	518.80	1.58	-1.58	-0.66
3,260.00	5.06	157.36	3,205.96	-501.68	162.78	527.41	1.01	-0.98	-2.53
3,351.00	4.44	158.74	3,296.65	-508.67	165.60	534.92	0.69	-0.68	1.52
3,442.00	3.56	158.49	3,387.42	-514.58	167.91	541.25	0.97	-0.97	-0.27
3,532.00	3.06	160.99	3,477.27	-519.45	169.72	546.44	0.58	-0.56	2.78
3,623.00	2.44	164.61	3,568.17	-523.61	171.03	550.80	0.71	-0.68	3.98
3,713.00	2.06	169.11	3,658.10	-527.05	171.84	554.32	0.47	-0.42	5.00
3,804.00	1.94	160.36	3,749.04	-530.11	172.67	557.49	0.36	-0.13	-9.62
3,895.00	2.25	166.61	3,839.98	-533.29	173.60	560.81	0.42	0.34	6.87
3,986.00	2.38	172.74	3,930.91	-536.91	174.25	564.45	0.31	0.14	6.74
4,076.00	2.19	179.86	4,020.84	-540.48	174.49	567.93	0.38	-0.21	7.91
4,167.00	2.63	190.24	4,111.76	-544.27	174.12	571.44	0.68	0.48	11.41
4,258.00	3.44	183.74	4,202.63	-549.05	173.57	575.83	0.97	0.89	-7.14
4,348.00	3.50	185.61	4,292.46	-554.48	173.13	580.88	0.14	0.07	2.08
4,439.00	2.81	177.86	4,383.32	-559.47	172.94	585.59	0.89	-0.76	-8.52
4,530.00	1.63	151.24	4,474.26	-562.84	173.65	589.01	1.69	-1.30	-29.25
4,620.00	1.69	155.86	4,564.22	-565.17	174.81	591.58	0.16	0.07	5.13

APC
Survey Report



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 921-23L1BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	14' RKB + 4862' GL @ 4876.00ft (ensign 146)
Site:	UINTAH_NBU 921-23E PAD	MD Reference:	14' RKB + 4862' GL @ 4876.00ft (ensign 146)
Well:	NBU 921-23L1BS	North Reference:	True
Wellbore:	NBU 921-23L1BS	Survey Calculation Method:	Minimum Curvature
Design:	NBU 921-23L1BS	Database:	edm5000p

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,711.00	1.63	153.99	4,655.18	-567.56	175.92	594.19	0.09	-0.07	-2.05
4,802.00	1.75	160.11	4,746.14	-570.03	176.96	596.86	0.24	0.13	6.73
4,892.00	2.00	156.74	4,836.09	-572.76	178.05	599.80	0.30	0.28	-3.74
4,983.00	0.75	205.86	4,927.07	-574.76	178.42	601.81	1.77	-1.37	53.98
5,073.00	0.88	182.74	5,017.06	-575.98	178.13	602.89	0.39	0.14	-25.69
5,164.00	0.88	189.99	5,108.05	-577.36	177.97	604.16	0.12	0.00	7.97
5,255.00	1.06	184.36	5,199.04	-578.89	177.79	605.56	0.22	0.20	-6.19
5,345.00	0.25	42.86	5,289.03	-579.58	177.86	606.24	1.41	-0.90	-157.22
5,436.00	0.31	64.23	5,380.03	-579.33	178.21	606.11	0.13	0.07	23.48
5,526.00	0.44	93.23	5,470.03	-579.24	178.78	606.19	0.25	0.14	32.22
5,617.00	1.63	28.61	5,561.01	-578.12	179.75	605.42	1.64	1.31	-71.01
5,708.00	1.13	36.11	5,651.99	-576.26	180.90	603.99	0.58	-0.55	8.24
5,798.00	0.94	54.99	5,741.97	-575.12	182.02	603.24	0.43	-0.21	20.98
5,889.00	0.44	68.99	5,832.97	-574.57	182.96	602.99	0.58	-0.55	15.38
5,980.00	0.50	99.36	5,923.96	-574.51	183.68	603.15	0.28	0.07	33.37
6,070.00	0.88	144.36	6,013.96	-575.13	184.47	603.98	0.70	0.42	50.00
6,161.00	1.06	82.61	6,104.95	-575.59	185.71	604.79	1.11	0.20	-67.86
6,252.00	0.75	14.24	6,195.94	-574.91	186.69	604.43	1.15	-0.34	-75.13
6,342.00	0.56	57.49	6,285.93	-574.10	187.21	603.82	0.57	-0.21	48.06
6,433.00	0.31	96.61	6,376.93	-573.89	187.83	603.80	0.41	-0.27	42.99
6,524.00	0.50	146.11	6,467.93	-574.25	188.29	604.28	0.42	0.21	54.40
6,614.00	1.13	163.61	6,557.92	-575.42	188.76	605.55	0.74	0.70	19.44
6,705.00	0.38	56.86	6,648.91	-576.12	189.27	606.36	1.42	-0.82	-117.31
6,796.00	0.69	120.74	6,739.91	-576.23	189.99	606.69	0.69	0.34	70.20
6,886.00	1.06	132.49	6,829.90	-577.07	191.07	607.82	0.45	0.41	13.06
6,977.00	1.19	147.61	6,920.88	-578.44	192.20	609.46	0.35	0.14	16.62
7,067.00	0.94	66.61	7,010.87	-578.94	193.38	610.28	1.55	-0.28	-90.00
7,158.00	2.00	17.61	7,101.84	-577.13	194.54	608.91	1.71	1.16	-53.85
7,249.00	1.69	17.74	7,192.79	-574.34	195.43	606.51	0.34	-0.34	0.14
7,339.00	1.38	20.86	7,282.76	-572.06	196.22	604.58	0.36	-0.34	3.47
7,430.00	0.94	17.86	7,373.74	-570.32	196.84	603.11	0.49	-0.48	-3.30
7,521.00	0.75	20.61	7,464.73	-569.06	197.28	602.03	0.21	-0.21	3.02
7,611.00	0.38	14.73	7,554.73	-568.22	197.56	601.31	0.42	-0.41	-6.53
7,702.00	1.44	354.31	7,645.71	-566.79	197.53	599.94	1.20	1.16	-22.44
7,793.00	0.81	355.74	7,736.70	-565.01	197.37	598.19	0.69	-0.69	1.57
7,883.00	0.50	10.86	7,826.69	-563.99	197.39	597.23	0.39	-0.34	16.80
7,974.00	1.81	276.49	7,917.67	-563.43	196.04	596.29	2.10	1.44	-103.70
8,065.00	1.31	259.86	8,008.64	-563.46	193.59	595.58	0.74	-0.55	-18.27
8,155.00	1.23	236.24	8,098.62	-564.17	191.77	595.72	0.58	-0.09	-26.24
8,246.00	1.31	221.36	8,189.60	-565.50	190.27	596.53	0.37	0.09	-16.35
8,336.00	1.25	201.74	8,279.58	-567.18	189.23	597.82	0.49	-0.07	-21.80
8,427.00	1.81	189.49	8,370.54	-569.52	188.62	599.88	0.71	0.62	-13.46
8,518.00	1.88	185.36	8,461.50	-572.42	188.25	602.53	0.17	0.08	-4.54

APC
Survey Report



Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 921-23E PAD
Well: NBU 921-23L1BS
Wellbore: NBU 921-23L1BS
Design: NBU 921-23L1BS

Local Co-ordinate Reference: Well NBU 921-23L1BS
TVD Reference: 14' RKB + 4862' GL @ 4876.00ft (ensign 146)
MD Reference: 14' RKB + 4862' GL @ 4876.00ft (ensign 146)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: edm5000p

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,608.00	1.69	175.36	8,551.45	-575.22	188.22	605.19	0.40	-0.21	-11.11
8,699.00	1.38	179.61	8,642.42	-577.65	188.33	607.54	0.36	-0.34	4.67
8,790.00	1.19	165.24	8,733.40	-579.66	188.58	609.53	0.41	-0.21	-15.79
8,880.00	1.25	157.86	8,823.38	-581.47	189.19	611.45	0.19	0.07	-8.20
8,971.00	1.25	156.61	8,914.35	-583.30	189.96	613.42	0.03	0.00	-1.37
9,061.00	1.38	165.11	9,004.33	-585.25	190.63	615.48	0.26	0.14	9.44
9,152.00	1.13	142.99	9,095.31	-587.03	191.45	617.42	0.59	-0.27	-24.31
9,243.00	0.75	187.99	9,186.30	-588.33	191.91	618.81	0.88	-0.42	49.45
9,333.00	1.00	168.36	9,276.29	-589.69	191.98	620.12	0.43	0.28	-21.81
9,426.00	0.94	135.36	9,369.28	-591.02	192.68	621.60	0.60	-0.06	-35.48
9,517.00	0.44	44.99	9,460.27	-591.31	193.45	622.11	1.14	-0.55	-99.31
9,608.00	0.50	77.11	9,551.27	-590.97	194.09	621.98	0.29	0.07	35.30
9,698.00	0.63	96.11	9,641.26	-590.94	194.96	622.21	0.25	0.14	21.11
9,789.00	0.94	104.61	9,732.25	-591.18	196.18	622.80	0.36	0.34	9.34
9,879.00	1.13	106.99	9,822.24	-591.62	197.74	623.70	0.22	0.21	2.64
9,970.00	0.88	116.11	9,913.23	-592.19	199.23	624.69	0.33	-0.27	10.02
10,061.00	1.19	134.99	10,004.21	-593.17	200.53	626.00	0.50	0.34	20.75
10,151.00	1.31	131.11	10,094.19	-594.51	201.96	627.71	0.16	0.13	-4.31
10,242.00	1.56	138.74	10,185.16	-596.12	203.56	629.73	0.35	0.27	8.38
10,332.00	1.63	139.36	10,275.13	-598.01	205.20	632.03	0.08	0.08	0.69
10,423.00	2.00	143.49	10,366.08	-600.27	206.99	634.72	0.43	0.41	4.54
10,514.00	2.38	146.74	10,457.01	-603.13	208.97	638.04	0.44	0.42	3.57
10,604.00	2.31	147.61	10,546.94	-606.22	210.97	641.59	0.09	-0.08	0.97
10,695.00	2.31	140.61	10,637.87	-609.19	213.12	645.06	0.31	0.00	-7.69
10,785.00	2.31	138.36	10,727.79	-611.95	215.47	648.40	0.10	0.00	-2.50
10,876.00	2.44	137.74	10,818.71	-614.75	217.99	651.83	0.15	0.14	-0.68
11,050.00	2.44	140.36	10,992.56	-620.34	222.85	658.62	0.06	0.00	1.51
last mwd survey									
11,100.00	2.44	140.36	11,042.51	-621.98	224.21	660.59	0.00	0.00	0.00
projection									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,650.00	2,601.90	-423.70	132.55	tie on point
11,050.00	10,992.56	-620.34	222.85	last mwd survey
11,100.00	11,042.51	-621.98	224.21	projection

Checked By: _____ Approved By: _____ Date: _____

US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N

UINTAH_NBU 921-23E PAD

NBU 921-23L1BS

NBU 921-23L1BS

Design: NBU 921-23L1BS

Survey Report - Geographic

30 August, 2011



Weatherford®

APC
Survey Report - Geographic



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 921-23L1BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	14' RKB + 4862' GL @ 4876.00ft (ensign 146)
Site:	UINTAH_NBU 921-23E PAD	MD Reference:	14' RKB + 4862' GL @ 4876.00ft (ensign 146)
Well:	NBU 921-23L1BS	North Reference:	True
Wellbore:	NBU 921-23L1BS	Survey Calculation Method:	Minimum Curvature
Design:	NBU 921-23L1BS	Database:	edm5000p

Project	UTAH - UTM (feet), NAD27, Zone 12N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 12N (114 W to 108 W)		

Site	UINTAH_NBU 921-23E PAD			
Site Position:		Northing:	14,537,799.03 ft	Latitude: 40.022903
From:	Lat/Long	Easting:	2,053,137.43 ft	Longitude: -109.525840
Position Uncertainty:	0.00 ft	Slot Radius:	0 "	Grid Convergence: 0.95 °

Well	NBU 921-23L1BS			
Well Position	+N/-S	0.00 ft	Northing: 14,537,769.76 ft	Latitude: 40.022825
	+E/-W	0.00 ft	Easting: 2,053,085.26 ft	Longitude: -109.526028
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level: 4,862.00 ft

Wellbore	NBU 921-23L1BS				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/21/2011	11.09	65.88	52,337

Design	NBU 921-23L1BS			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 10.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	10.00	0.00	0.00	162.54

Survey Program	Date 8/30/2011			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
186.00	2,650.00	Survey #1 (NBU 921-23L1BS)	MWD	MWD - Standard
2,717.00	11,100.00	Survey #2 (NBU 921-23L1BS)	MWD	MWD - Standard

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
10.00	0.00	0.00	10.00	0.00	0.00	14,537,769.76	2,053,085.26	40.022825	-109.526028
186.00	0.13	60.84	186.00	0.10	0.17	14,537,769.86	2,053,085.43	40.022825	-109.526028
270.00	1.21	176.80	269.99	-0.74	0.31	14,537,769.02	2,053,085.58	40.022823	-109.526027
360.00	2.85	197.07	359.94	-3.83	-0.30	14,537,765.92	2,053,085.03	40.022815	-109.526029
450.00	3.31	181.62	449.81	-8.57	-1.03	14,537,761.18	2,053,084.38	40.022802	-109.526032
540.00	4.50	176.75	539.60	-14.69	-0.90	14,537,755.06	2,053,084.60	40.022785	-109.526031
630.00	5.63	176.12	629.24	-22.62	-0.40	14,537,747.14	2,053,085.23	40.022763	-109.526030
720.00	6.42	181.96	718.75	-32.05	-0.27	14,537,737.71	2,053,085.52	40.022737	-109.526029
810.00	6.69	178.25	808.16	-42.32	-0.29	14,537,727.44	2,053,085.67	40.022709	-109.526029
900.00	8.06	174.25	897.41	-53.84	0.51	14,537,715.93	2,053,086.66	40.022677	-109.526026
990.00	9.75	165.87	986.33	-67.51	3.00	14,537,702.31	2,053,089.38	40.022640	-109.526018

APC
Survey Report - Geographic



Company: US ROCKIES REGION PLANNING
Project: UTAH - UTM (feet), NAD27, Zone 12N
Site: UINTAH_NBU 921-23E PAD
Well: NBU 921-23L1BS
Wellbore: NBU 921-23L1BS
Design: NBU 921-23L1BS

Local Co-ordinate Reference: Well NBU 921-23L1BS
TVD Reference: 14' RKB + 4862' GL @ 4876.00ft (ensign 146)
MD Reference: 14' RKB + 4862' GL @ 4876.00ft (ensign 146)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: edm5000p

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
1,080.00	11.19	163.25	1,074.83	-83.26	7.38	14,537,686.63	2,053,094.01	40.022596	-109.526002
1,170.00	13.38	163.12	1,162.76	-101.59	12.92	14,537,668.39	2,053,099.86	40.022546	-109.525982
1,260.00	14.13	160.75	1,250.18	-121.93	19.56	14,537,648.17	2,053,106.84	40.022490	-109.525958
1,350.00	14.25	159.56	1,337.43	-142.68	27.05	14,537,627.55	2,053,114.67	40.022433	-109.525932
1,440.00	14.25	157.62	1,424.67	-163.30	35.14	14,537,607.06	2,053,123.10	40.022377	-109.525903
1,530.00	14.44	160.75	1,511.86	-184.14	43.06	14,537,586.36	2,053,131.36	40.022320	-109.525875
1,620.00	14.69	159.75	1,598.97	-205.44	50.71	14,537,565.19	2,053,139.36	40.022261	-109.525847
1,710.00	14.81	157.00	1,686.00	-226.73	59.15	14,537,544.03	2,053,148.15	40.022203	-109.525817
1,800.00	15.13	156.12	1,772.95	-248.06	68.40	14,537,522.86	2,053,157.76	40.022144	-109.525784
1,890.00	14.44	157.37	1,859.97	-269.16	77.47	14,537,501.92	2,053,167.18	40.022086	-109.525752
1,980.00	13.63	162.62	1,947.29	-289.64	84.96	14,537,481.57	2,053,175.00	40.022030	-109.525725
2,070.00	13.54	162.32	2,034.77	-309.80	91.32	14,537,461.52	2,053,181.70	40.021974	-109.525702
2,160.00	13.38	160.75	2,122.30	-329.66	97.96	14,537,441.76	2,053,188.66	40.021920	-109.525678
2,250.00	12.44	159.75	2,210.02	-348.59	104.75	14,537,422.95	2,053,195.76	40.021868	-109.525654
2,340.00	12.19	159.50	2,297.95	-366.59	111.43	14,537,405.07	2,053,202.74	40.021819	-109.525630
2,430.00	11.63	160.12	2,386.01	-384.02	117.84	14,537,387.74	2,053,209.44	40.021771	-109.525607
2,520.00	11.13	159.62	2,474.24	-400.69	123.95	14,537,371.17	2,053,215.83	40.021725	-109.525586
2,610.00	11.00	159.62	2,562.57	-416.88	129.97	14,537,355.08	2,053,222.11	40.021680	-109.525564
2,650.00	10.00	158.87	2,601.90	-423.70	132.55	14,537,348.31	2,053,224.80	40.021662	-109.525555
tie on point									
2,717.00	9.51	157.29	2,667.93	-434.23	136.78	14,537,337.85	2,053,229.21	40.021633	-109.525540
2,807.00	8.49	153.57	2,756.82	-447.04	142.61	14,537,325.14	2,053,235.25	40.021598	-109.525519
2,898.00	8.25	159.36	2,846.85	-459.17	147.90	14,537,313.10	2,053,240.74	40.021564	-109.525500
2,989.00	8.63	163.49	2,936.87	-471.82	152.14	14,537,300.52	2,053,245.19	40.021530	-109.525485
3,079.00	7.38	160.24	3,025.99	-483.74	156.02	14,537,288.67	2,053,249.26	40.021497	-109.525471
3,170.00	5.94	159.64	3,116.37	-493.65	159.63	14,537,278.82	2,053,253.04	40.021470	-109.525458
3,260.00	5.06	157.36	3,205.96	-501.68	162.78	14,537,270.84	2,053,256.32	40.021448	-109.525447
3,351.00	4.44	158.74	3,296.65	-508.67	165.60	14,537,263.90	2,053,259.26	40.021428	-109.525437
3,442.00	3.56	158.49	3,387.42	-514.58	167.91	14,537,258.03	2,053,261.67	40.021412	-109.525429
3,532.00	3.06	160.99	3,477.27	-519.45	169.72	14,537,253.19	2,053,263.55	40.021399	-109.525422
3,623.00	2.44	164.61	3,568.17	-523.61	171.03	14,537,249.05	2,053,264.93	40.021387	-109.525418
3,713.00	2.06	169.11	3,658.10	-527.05	171.84	14,537,245.62	2,053,265.80	40.021378	-109.525415
3,804.00	1.94	160.36	3,749.04	-530.11	172.67	14,537,242.58	2,053,266.68	40.021370	-109.525412
3,895.00	2.25	166.61	3,839.98	-533.29	173.60	14,537,239.41	2,053,267.66	40.021361	-109.525408
3,986.00	2.38	172.74	3,930.91	-536.91	174.25	14,537,235.81	2,053,268.37	40.021351	-109.525406
4,076.00	2.19	179.86	4,020.84	-540.48	174.49	14,537,232.24	2,053,268.67	40.021341	-109.525405
4,167.00	2.63	190.24	4,111.76	-544.27	174.12	14,537,228.44	2,053,268.37	40.021331	-109.525406
4,258.00	3.44	183.74	4,202.63	-549.05	173.57	14,537,223.65	2,053,267.90	40.021318	-109.525408
4,348.00	3.50	185.61	4,292.46	-554.48	173.13	14,537,218.22	2,053,267.54	40.021303	-109.525410
4,439.00	2.81	177.86	4,383.32	-559.47	172.94	14,537,213.22	2,053,267.44	40.021289	-109.525411
4,530.00	1.63	151.24	4,474.26	-562.84	173.65	14,537,209.87	2,053,268.20	40.021280	-109.525408
4,620.00	1.69	155.86	4,564.22	-565.17	174.81	14,537,207.56	2,053,269.39	40.021273	-109.525404
4,711.00	1.63	153.99	4,655.18	-567.56	175.92	14,537,205.19	2,053,270.55	40.021267	-109.525400
4,802.00	1.75	160.11	4,746.14	-570.03	176.96	14,537,202.74	2,053,271.63	40.021260	-109.525396
4,892.00	2.00	156.74	4,836.09	-572.76	178.05	14,537,200.02	2,053,272.76	40.021252	-109.525392
4,983.00	0.75	205.86	4,927.07	-574.76	178.42	14,537,198.03	2,053,273.16	40.021247	-109.525391
5,073.00	0.88	182.74	5,017.06	-575.98	178.13	14,537,196.81	2,053,272.89	40.021244	-109.525392
5,164.00	0.88	189.99	5,108.05	-577.36	177.97	14,537,195.42	2,053,272.76	40.021240	-109.525393
5,255.00	1.06	184.36	5,199.04	-578.89	177.79	14,537,193.89	2,053,272.60	40.021236	-109.525393
5,345.00	0.25	42.86	5,289.03	-579.58	177.86	14,537,193.20	2,053,272.68	40.021234	-109.525393
5,436.00	0.31	64.23	5,380.03	-579.33	178.21	14,537,193.46	2,053,273.04	40.021234	-109.525392
5,526.00	0.44	93.23	5,470.03	-579.24	178.78	14,537,193.56	2,053,273.60	40.021235	-109.525390
5,617.00	1.63	28.61	5,561.01	-578.12	179.75	14,537,194.69	2,053,274.55	40.021238	-109.525386
5,708.00	1.13	38.11	5,651.99	-576.26	180.90	14,537,196.57	2,053,275.67	40.021243	-109.525382
5,798.00	0.94	54.99	5,741.97	-575.12	182.02	14,537,197.73	2,053,276.78	40.021246	-109.525378

APC

Survey Report - Geographic



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 921-23L1BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	14' RKB + 4862' GL @ 4876.00ft (ensign 146)
Site:	UINTAH_NBU 921-23E PAD	MD Reference:	14' RKB + 4862' GL @ 4876.00ft (ensign 146)
Well:	NBU 921-23L1BS	North Reference:	True
Wellbore:	NBU 921-23L1BS	Survey Calculation Method:	Minimum Curvature
Design:	NBU 921-23L1BS	Database:	edm5000p

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
5,889.00	0.44	68.99	5,832.97	-574.57	182.96	14,537,198.30	2,053,277.70	40.021248	-109.525375
5,980.00	0.50	99.36	5,923.96	-574.51	183.68	14,537,198.37	2,053,278.42	40.021248	-109.525372
6,070.00	0.88	144.36	6,013.96	-575.13	184.47	14,537,197.76	2,053,279.22	40.021246	-109.525370
6,161.00	1.06	82.61	6,104.95	-575.59	185.71	14,537,197.32	2,053,280.47	40.021245	-109.525365
6,252.00	0.75	14.24	6,195.94	-574.91	186.69	14,537,198.02	2,053,281.44	40.021247	-109.525362
6,342.00	0.56	57.49	6,285.93	-574.10	187.21	14,537,198.83	2,053,281.94	40.021249	-109.525360
6,433.00	0.31	96.61	6,376.93	-573.89	187.83	14,537,199.06	2,053,282.56	40.021249	-109.525358
6,524.00	0.50	146.11	6,467.93	-574.25	188.29	14,537,198.71	2,053,283.03	40.021248	-109.525356
6,614.00	1.13	163.61	6,557.92	-575.42	188.76	14,537,197.54	2,053,283.52	40.021245	-109.525354
6,705.00	0.38	56.86	6,648.91	-576.12	189.27	14,537,196.85	2,053,284.04	40.021243	-109.525352
6,796.00	0.69	120.74	6,739.91	-576.23	189.99	14,537,196.75	2,053,284.76	40.021243	-109.525350
6,886.00	1.06	132.49	6,829.90	-577.07	191.07	14,537,195.92	2,053,285.86	40.021241	-109.525346
6,977.00	1.19	147.61	6,920.88	-578.44	192.20	14,537,194.58	2,053,287.01	40.021237	-109.525342
7,067.00	0.94	66.61	7,010.87	-578.94	193.38	14,537,194.10	2,053,288.19	40.021236	-109.525338
7,158.00	2.00	17.61	7,101.84	-577.13	194.54	14,537,195.93	2,053,289.33	40.021240	-109.525334
7,249.00	1.69	17.74	7,192.79	-574.34	195.43	14,537,198.73	2,053,290.17	40.021248	-109.525330
7,339.00	1.38	20.86	7,282.76	-572.06	196.22	14,537,201.02	2,053,290.92	40.021254	-109.525328
7,430.00	0.94	17.86	7,373.74	-570.32	196.84	14,537,202.77	2,053,291.51	40.021259	-109.525325
7,521.00	0.75	20.61	7,464.73	-569.06	197.28	14,537,204.04	2,053,291.93	40.021263	-109.525324
7,611.00	0.38	14.73	7,554.73	-568.22	197.56	14,537,204.89	2,053,292.20	40.021265	-109.525323
7,702.00	1.44	354.31	7,645.71	-566.79	197.53	14,537,206.32	2,053,292.14	40.021269	-109.525323
7,793.00	0.81	355.74	7,736.70	-565.01	197.37	14,537,208.09	2,053,291.95	40.021274	-109.525323
7,883.00	0.50	10.86	7,826.69	-563.99	197.39	14,537,209.11	2,053,291.96	40.021277	-109.525323
7,974.00	1.81	276.49	7,917.67	-563.43	196.04	14,537,209.64	2,053,290.60	40.021278	-109.525328
8,065.00	1.31	259.86	8,008.64	-563.46	193.59	14,537,209.58	2,053,288.15	40.021278	-109.525337
8,155.00	1.23	236.24	8,098.62	-564.17	191.77	14,537,208.83	2,053,286.34	40.021276	-109.525343
8,246.00	1.31	221.36	8,189.60	-565.50	190.27	14,537,207.49	2,053,284.86	40.021272	-109.525349
8,336.00	1.25	201.74	8,279.58	-567.18	189.23	14,537,205.79	2,053,283.85	40.021268	-109.525353
8,427.00	1.81	189.49	8,370.54	-569.52	188.62	14,537,203.44	2,053,283.28	40.021261	-109.525355
8,518.00	1.88	185.36	8,461.50	-572.42	188.25	14,537,200.53	2,053,282.96	40.021253	-109.525356
8,608.00	1.69	175.36	8,551.45	-575.22	188.22	14,537,197.73	2,053,282.97	40.021246	-109.525356
8,699.00	1.38	179.61	8,642.42	-577.65	188.33	14,537,195.30	2,053,283.13	40.021239	-109.525356
8,790.00	1.19	165.24	8,733.40	-579.66	188.58	14,537,193.30	2,053,283.41	40.021234	-109.525355
8,880.00	1.25	157.86	8,823.38	-581.47	189.19	14,537,191.50	2,053,284.05	40.021229	-109.525353
8,971.00	1.25	156.61	8,914.35	-583.30	189.96	14,537,189.68	2,053,284.84	40.021224	-109.525350
9,061.00	1.38	165.11	9,004.33	-585.25	190.63	14,537,187.74	2,053,285.55	40.021218	-109.525348
9,152.00	1.13	142.99	9,095.31	-587.03	191.45	14,537,185.98	2,053,286.40	40.021213	-109.525345
9,243.00	0.75	187.99	9,186.30	-588.33	191.91	14,537,184.68	2,053,286.88	40.021210	-109.525343
9,333.00	1.00	168.36	9,276.29	-589.69	191.98	14,537,183.33	2,053,286.97	40.021206	-109.525343
9,426.00	0.94	135.36	9,369.28	-591.02	192.68	14,537,182.00	2,053,287.70	40.021202	-109.525340
9,517.00	0.44	44.99	9,460.27	-591.31	193.45	14,537,181.73	2,053,288.47	40.021202	-109.525337
9,608.00	0.50	77.11	9,551.27	-590.97	194.09	14,537,182.08	2,053,289.10	40.021202	-109.525335
9,698.00	0.63	96.11	9,641.26	-590.94	194.96	14,537,182.13	2,053,289.97	40.021203	-109.525332
9,789.00	0.94	104.61	9,732.25	-591.18	196.18	14,537,181.91	2,053,291.20	40.021202	-109.525328
9,879.00	1.13	106.99	9,822.24	-591.62	197.74	14,537,181.49	2,053,292.77	40.021201	-109.525322
9,970.00	0.88	116.11	9,913.23	-592.19	199.23	14,537,180.94	2,053,294.26	40.021199	-109.525317
10,061.00	1.19	134.99	10,004.21	-593.17	200.53	14,537,179.99	2,053,295.57	40.021196	-109.525312
10,151.00	1.31	131.11	10,094.19	-594.51	201.96	14,537,178.67	2,053,297.03	40.021193	-109.525307
10,242.00	1.56	138.74	10,185.16	-596.12	203.56	14,537,177.09	2,053,298.66	40.021188	-109.525301
10,332.00	1.63	139.36	10,275.13	-598.01	205.20	14,537,175.22	2,053,300.33	40.021183	-109.525295
10,423.00	2.00	143.49	10,366.08	-600.27	206.99	14,537,172.99	2,053,302.16	40.021177	-109.525289
10,514.00	2.38	146.74	10,457.01	-603.13	208.97	14,537,170.17	2,053,304.19	40.021169	-109.525282
10,604.00	2.31	147.61	10,546.94	-606.22	210.97	14,537,167.11	2,053,306.23	40.021161	-109.525275
10,695.00	2.31	140.61	10,637.87	-609.19	213.12	14,537,164.18	2,053,308.43	40.021152	-109.525267
10,785.00	2.31	138.36	10,727.79	-611.95	215.47	14,537,161.46	2,053,310.83	40.021145	-109.525259

APC
Survey Report - Geographic



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well NBU 921-23L1BS
Project:	UTAH - UTM (feet), NAD27, Zone 12N	TVD Reference:	14' RKB + 4862' GL @ 4876.00ft (ensign 146)
Site:	UINTAH_NBU 921-23E PAD	MD Reference:	14' RKB + 4862' GL @ 4876.00ft (ensign 146)
Well:	NBU 921-23L1BS	North Reference:	True
Wellbore:	NBU 921-23L1BS	Survey Calculation Method:	Minimum Curvature
Design:	NBU 921-23L1BS	Database:	edm5000p

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
10,876.00	2.44	137.74	10,818.71	-614.75	217.99	14,537,158.70	2,053,313.40	40.021137	-109.525250
11,050.00	2.44	140.36	10,992.56	-620.34	222.85	14,537,153.19	2,053,318.34	40.021122	-109.525232
last mwd survey									
11,100.00	2.44	140.36	11,042.51	-621.98	224.21	14,537,151.57	2,053,319.73	40.021117	-109.525228
projection									

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,650.00	2,601.90	-423.70	132.55	tie on point
11,050.00	10,992.56	-620.34	222.85	last mwd survey
11,100.00	11,042.51	-621.98	224.21	projection

Checked By: _____ Approved By: _____ Date: _____

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		FORM 9
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		5. LEASE DESIGNATION AND SERIAL NUMBER: UTU 0149075
1. TYPE OF WELL Gas Well		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: UTE
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P.		7. UNIT or CA AGREEMENT NAME: NATURAL BUTTES
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779		8. WELL NAME and NUMBER: NBU 921-23L1BS
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2201 FNL 0477 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: SWNW Section: 23 Township: 09.0S Range: 21.0E Meridian: S		9. API NUMBER: 43047506210000
10. FIELD and POOL or WILDCAT: NATURAL BUTTES		COUNTY: UINTAH
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA		STATE: UTAH
TYPE OF SUBMISSION <input type="checkbox"/> NOTICE OF INTENT Approximate date work will start: <input checked="" type="checkbox"/> SUBSEQUENT REPORT Date of Work Completion: 2/25/2014 <input type="checkbox"/> SPUD REPORT Date of Spud: <input type="checkbox"/> DRILLING REPORT Report Date:	TYPE OF ACTION <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;"> <input type="checkbox"/> ACIDIZE <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> DEEPEN <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PRODUCTION START OR RESUME <input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> WATER SHUTOFF <input type="checkbox"/> WILDCAT WELL DETERMINATION </div> <div style="width: 33%;"> <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> SI TA STATUS EXTENSION <input checked="" type="checkbox"/> OTHER </div> <div style="width: 33%;"> <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CONVERT WELL TYPE <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> PLUG BACK <input type="checkbox"/> RECOMPLETE DIFFERENT FORMATION <input type="checkbox"/> TEMPORARY ABANDON <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> APD EXTENSION </div> </div> OTHER: <input type="text" value="Wellbore Cleanout"/>	
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. MIRU, SPOT EQUIP, CONTROL WELL W/ TMAC & FR, ND WH, PU 10' PUP & TRY TO UNLAND TBG PULLED 90K (STUCK), SET SLIPS REMOVE HANGER & STRIP ON BOP & NU BOP, RU FLOOR & TBG EQUIP. PU 1 JT L-80 TBG & WORK STRING 0 TO 90K 3 - 4 TIMES CAME FREE, SLACK OFF 40K & PICK UP 60 - 65K, L/D 3 JTS & LAND TBG W/ 326 JTS @ 10,352.80', RD FLOOR & TBG EQUIP, ND BOP, NU WH.		
NAME (PLEASE PRINT) Doreen Green		PHONE NUMBER 435 781-9758
SIGNATURE N/A		TITLE Regulatory Analyst II
DATE 3/19/2014		<div style="text-align: right;"> Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY March 19, 2014 </div>